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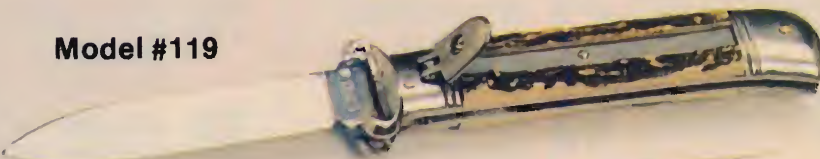
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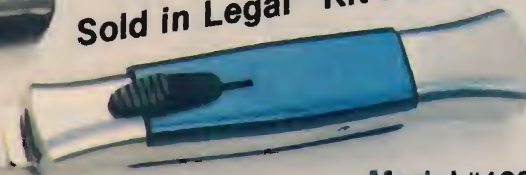


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AMERICAN SURVIVAL GUIDE

VOLUME 8, NUMBER 11 NOVEMBER, 1986

THE MAGAZINE FOR SAFER LIVING

COVER:

The Colt AR-15 A2 HBAR Sporter shown here fitted with a Swarovski 1.5 X 14 Cobra Scope and DTA MIL/BRAKE muzzle brake, is the latest addition to the M16/AR-15 family. Like its predecessor the AR-15 shown above it here, the HBAR fires standard .223 Remington (5.56mm NATO) ammo, but the HBAR's 1-in-7 twist also permits use of the new, longer range .223 ammo such as the Samson ammunition here with 63-grain bullets. See page 24 (Photo by Jim Benson).



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Was the Oklahoma mass murderer a survivalist?

WHAT?!" I said, leaning forward in my chair. A reporter covering the Oklahoma mass murder on the NBC evening news on television had just said that authorities searching the home of mass murderer Patrick Henry Sherrill had found "survivalist magazines."

"Oh, no!" I said. Here we go again. The news media will surely jump on this one. This guy must've fancied himself a survivalist and he's just the kind of nut gun-hating elitist media types love to portray as your typical survivalist—a gun-waving crazy—and this one's a mass murderer to boot. They'll have a heyday.

Sherrill, in case you didn't know, was a 44-year-old part-time postal worker and expert marksman in the Oklahoma National Guard. He used two .45 auto pistols he'd checked out of the Oklahoma City Guard center in a bloody rampage through the Edmond, Oklahoma, Post Office where he worked in which he shot to death 14 coworkers and wounded six others before turning one of his guns on himself and taking his own life.

Why'd he do it? No one knows for sure. There was talk of him being in trouble with his superiors and the possibility of him losing his job. He was apparently angry with some of his coworkers, but that's about the only clue to his bizarre acts. He had no criminal record. Some neighbors told reporters that Sherrill was a "peeping Tom" who manifested other strange behavior. But no one had expected anything like what he did.

Anxious to see how the other major news media would handle this story I switched to ABC news in time to catch their report on the mass murder. No mention of anything about survivalists. A check of the CBS news revealed no mention of survivalists in the Sherrill matter either.

The next day I read in the newspapers that copies of *Soldier of Fortune* magazine and the English language edition of the Soviet magazine *Soviet Life* were found in Sherrill's residence, along with more guns and radio communications equipment.

There was no further mention of "survivalist" in connection with the mass murder that I could find in any of the news stories I read, heard or watched about Sherrill and the killings.

Did Sherrill read *American Survival Guide* also? And did he study survival? Did he consider himself a survivalist?

I don't know. Maybe. Maybe not. Does it really make that much difference?

Was this another attempt by some gun-

hater in the news media to smear survivalists which was perhaps dropped when not enough evidence could be gathered to support it? Or was Sherrill more actively involved in what some call the survivalist movement? I don't know. We may never know.

Let's take a look at what the news media learned about Sherrill after the murders. He had served in the Marine Corps. He lived alone and quietly, apparently. He was a weapons expert and weapons instructor in the National Guard with a good service record. He had studied radio communications in the Marine Corps and had an interest in such communications at home. This is something many survivalists are also interested in. Ditto for guns and shooting.

But when all is said and done, what difference does it make? Is Patrick Henry Sherrill representative of the typical survivalist? Absolutely not! He may have been interested in and even studied survival subjects such as might be found in *Soldier of Fortune*, but any description of him as a survivalist could not be made, in my opinion, once he became a murderer.

Gunning down your coworkers for no reason and then committing suicide has nothing whatsoever to do with survival of any kind. Once Patrick Henry Sherrill got the idea in his head to murder, he lost any possible connection with survival or survivalists.

That survivalists—many of them, anyway—like guns and military-like training with guns almost goes without saying. But the vast majority of these people, I have no doubt, are reasonable, law-abiding citizens who are interested in staying alive and helping others to survive any threat to their existence. Their interests include other subjects in survival which have nothing to do with firearms.

To say Sherrill's behavior was typical of a survivalist would be as absurd as saying it was also typical of a National Guardsman or a marksman . . . or a postal worker, for that matter.

Much as some of the anti-gun fanatics would like to use this incident to propagandize against survivalists and legal firearm ownership, their arguments should not hold water for reasonable people. That some people betray society's trust in them to possess and use firearms responsibly is no justification for banning firearms or condemning survivalists who possess them

—Jim Benson.

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MAIL CALL

Nuclear Survival Headstart

It's funny. I was a sergeant in the 5th Special Forces, and have been a paramedic and assistant director of a rural ambulance service for nine years. Somehow my wife and I talked of surviving a nuclear exchange and I told her I'd just get some morphine and she and the kids and I would all have a nice sleep when we heard our missiles launch. She, however, wanted to try to survive it if at all possible, no matter how much talking I did or how many articles I showed her on the effects of radiation. She persisted, and won! Well, the rest is history. We are choosing our gear, supplies, plans and even our land carefully, and, I might add, with some assistance from your articles. With my previous experience with the Green Berets and being a paramedic and Deb's perseverance and willingness to learn, we have a headstart, and with your magazine to use, we'll survive if at all possible. Thanks again for such a useful tool as your magazine.

Robert D. Garrett
Fayette, Missouri

Very glad to learn you find the magazine useful, Robert. We'll try to keep it useful and make it more so. We're getting good help these days from a lot of serious, knowledgeable people, including a number of former "Green Beanies" like yourself who are writing for us about survival.

Handgun Stopping Power

The letter from Donald Loomis in your August 1986 issue asked about my views on stopping power versus controllability and noted that this was not covered in an article about my self-defense system in your April 1986 issue. You mentioned that I would be submitting an article on handguns and self defense. I did submit the article, which was published in your September 1986 issue but it did not cover the subject of stopping power in close-range defensive shooting. I did mention that I liked the Colt .45 semiautomatic for its reliability, speed of reloading and stopping power but I recommend the .38 Special revolver as the best defensive handgun for men and women. I realize the .38 Special round is not considered much of a "manstopper" but when you use any of the following bullets with +P loads you greatly increase the stopping power of this caliber:

1) The 80-grain Glaser Safety Slug; 2) Sierra's 110-grain jacketed hollow cavity Blitz Bullet; 3) Winchester's 95-grain Silvertip Hollowpoint Bullet. The Glaser Safety Slug contains small shot instead of a solid core and attains high muzzle velocity, e.g., 1,400 FPS in a 2-inch barrel, 1,600 FPS in a 4-inch barrel. The stopping power of any caliber is hard to guarantee (except maybe two blasts from a 10 gauge shotgun at point-blank range) and there are many reports of people taking solid hits from .45 and .357 Magnum rounds and still not dropping. The reason I recommend the revolver over the automatic for defensive shooting is due to its simplicity of function. When loaded, a round is always chambered so all you have to do is point and pull the trigger. With an automatic you must pull the slide back to chamber a round. This takes time and under stress you may short-stroke, causing a jam. If you carry the auto with a round chambered, you must release the safety and under stress you may forget to do this. If using a double action auto, the first and second rounds have different trigger pulls and positions and this can throw you off. Remember, only a few rounds are fired in most gunfights so a 15-round magazine capacity is not critical. The revolver, even though holding only 5 or 6 rounds, is always ready to go. The automatic introduces complications and under stress, simplicity is the key.

John McSweeney
North Riverside, Illinois

We appreciate your thoughts, John. ●

We Goofed

As sometimes happens in any publication, we got in a hurry and what came out on the printer wasn't what we meant to put in. For the record, in the article "H&K 94s" in the September 1986 issue of *ASG* it was incorrectly stated that the H&K MP5 submachine gun "fires from an open bolt." What we meant to say is that the MP5, like all other H&K semiautomatic weapons, fires from a closed bolt. Please excuse the blunder—the editors.

SURVIVAL LINE

U.S. civil defense decline, Goetz indictment reinstated, nuclear poll, Soviet commando film, storing your own blood, knife ban . . .

U. S. CIVIL defense capabilities are low and declining." "National survival would be in jeopardy" in the event of a nuclear attack.

These are some of the conclusions reached in a report prepared for Congress by the Federal Emergency Management Agency (FEMA). Citing an overall lack of serious commitment to civil defense efforts, along with meager budget allocations, one FEMA official said that the findings of the report "should not come as much of a surprise."

Other findings in the report include the lack of "survivable" emergency operating centers (EOCs) in at least a dozen states. Many other EOCs considered "survivable" lack basic necessities such as food and water supplies to allow them to function in their assigned role of co-ordinating post-war recovery efforts.

The report noted that the U.S. annually spends about 55 cents per person on civil defense. Most of that expenditure is allocated to natural disaster and/or industrial accident emergencies. In contrast, Switzerland, which has a formal policy of providing blast shelters for its entire population, spends about \$38 per year for each citizen on civil defense.

Goetz Trial On Again—The New York Court of Appeals, the highest court in New York State, has overruled a lower New York court decision which had upheld dismissal of the attempted murder indictment of Bernhard Goetz. The new ruling means that the New York City "subway vigilante" will now have to stand trial on the original charge of attempted murder.

Of the four youths Goetz shot because he feared they were going to mug him, two were in jail, one for robbery, the other for rape, one was in a drug rehabilitation program, and the last remains paralyzed and in a hospital at this writing.

Nuclear Poll—A poll of 2,000 adults conducted by the National Endowment for the Preservation of Liberty, a pro-defense group, shows a widespread distrust of arms control agreements made with the Soviet Union. Only 26.5 percent of those polled felt that the U.S. could rely on the Soviets to abide by the terms of future nuclear arms control treaties and 61.3 percent of those polled supported a continuation of the U.S. defense buildup regardless of the actions taken by the Soviets or any treaties

which might be signed.

The poll also showed an increasing awareness by the public of nuclear threats posed by renegade nations and terrorists. Some 28 percent of those polled said that the Soviets were most likely to launch a nuclear attack, but 24 percent said another nation was most likely to do so, and 31 percent said such an attack was likely to be launched by terrorists.

Soviet Rambo?—When the movie *Rambo* was released last year it was widely denounced as anti-Soviet hysteria. It was condemned by many U.S. critics as glorifying war and violence. The Soviets launched an all out campaign against the film, sending representatives to be interviewed by U.S. journalists and commentators.

A new film has recently been packing Moscow theaters. The film *Solo Voyage* focuses on a Soviet commando unit which foils an attempt by "agents of the U.S. military-industrial complex" to start a war with the Soviet Union, in order to boost profits for U.S. arms manufacturers. The U.S. agents are led by a "disturbed Vietnam vet" who while in Vietnam directed the massacre of Vietnamese civilians.

In the movie, filmed on location in Moscow, Cuba, and Czechoslovakia, the Soviet commandos accomplish their mission using the same violent tactics that were criticized in *Rambo*. One Soviet commando even mentions the "unfortunate" need to kill Americans in order to defend the "moral and non-materialistic" Soviet Union.

Surgical Survival—The fear of contracting AIDS from a blood transfusion has spawned a new business. There are now companies which will store your own blood for you, and get it to you, if you are in need of a transfusion. These companies allow you to stockpile blood and blood products for up to a year. Many hospitals will also allow you to store your own blood at the hospital if you have upcoming elective surgery scheduled.

Knife Ban—In the September 1986 Survival Line we reported a growing movement in state legislatures and the U.S. Congress to ban sales and possession of the so-called ballistic knife. The first such ban specifically aimed at "blade propelling knives" has now been signed into law in New York State. ●

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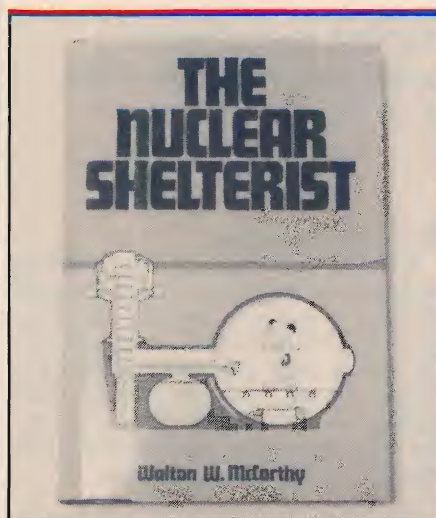
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BOOK REVIEWS



The Nuclear Shelterist, Fundamentals of Nuclear Weapons and Personal Blast Shelters, by Walton W. McCarthy; Todd & Honeywell, Inc., Dept. ASG, Ten Cuttermill Road, Great Neck, NY 11021; (516) 487-9777; 354 pages, hardcover; \$22.50.

This is a well researched book which examines the "myth of nuclear war being the end of life as we know it" according to the publishers. "Whether one wants to prevent or survive a nuclear war, the solution is knowledge." This book, the jacket statement continues, "offers a non-political view on nuclear war by giving us the scientific information required in dealing with modern weapon effects. With the help of numerous engineers and scientists in many fields of engineering, the author presents readable data for the layperson on the fundamentals of nuclear war and personal blast shelters." The result of a two-year research project, the book explains the fundamentals of nuclear, chemical and biological weaponry and develops more than 100 standards on how people can survive through the use of personal blast shelters. "Readers will find it surprising that even near ground zero, the radiation level returns to almost normal is not more than 41 days," according to a release accompanying *The Nuclear Shelterist*. "If our society continues on its present course of perpetuating ignorance about the effects of nuclear weapons, World War III is inevitable," says the author in the introduction. "Intelligent decisions must be based on facts, not myths or dramatic distortions of the facts." There are chapters on long term effects of nuclear war, immediate effects of nuclear detonations, blast, fallout and radiation, shelters and shelter periods, shelter basics, shelter temperature, food planning and storage, radiation shielding, chemical-biological weapons and protection and much more.



Advanced Homemade Fireworks, by Blaze C. Barrymore; Butokukai, Dept. ASG, P.O. Box 430, Cornville, AZ 86325; (602) 634-6280; 86 pages, paperback; \$8 plus \$2 shipping and handling.

After advising the reader of the dangers involved in making fireworks and handling them and that the reader is responsible for conforming to all laws, federal, state or local pertaining to the use of this book, the author notes that pyrotechnics have played an important role in human culture and warfare for centuries. "Most fireworks seen today are professional displays constructed and operated by skilled artisans of the trade . . . Fireworks *can* be dangerous if mishandled, but many of them are far safer to handle than, say, a can of gasoline, and the majority of them are definitely safer to handle than a glass container of gasoline . . . The art of making pyrotechnics can be a satisfying and safe hobby when the grades and specifications of chemicals contained herein are followed and guesswork is eliminated. In fact, the pyrotechnic hobbyist who is patient, methodical and pays strict attention to what he is doing is probably in less danger than he would be while skiing or riding a motorcycle." In clear, easy to understand language, the book's chapters cover the chemical ingredients for fireworks, manufacturing procedures, pyrotechnic devices and explosive pyrotechnics, pyrotechnics that whistle, sparkle and smoke, special preparations, a review of black powder, assorted formulae and experiments in chemical reactions. This is a thorough, well written and illustrated "how to do it" book with valuable information about fireworks for the novice or the expert.

(Continued on page 30)

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Israeli Gas Mask Special CBW EFFECTIVE



We decided to put together a package for the highly effective new Israeli Civilian Gas Masks that we have been offering for the past 15 months. We wanted something that was easy to pack and easy to carry. So we have taken a mask which comes with one canister and added a second canister and put them in a heavy duty used US mask bag. The bag features three small outside pockets that can hold other items such as water tablets, matches, knife, etc. It also has a nice carrying strap that is made so it will not break easily. The bag secures the mask and canisters with two easy to open spring snaps.

The Israeli Masks are not only new (meaning they have not been used) but also are of recent manufacture. Made for the Israeli population to protect against gas attacks, they will handle all common battlefield gases including CBW gases. One important feature is that the filter can be changed in seconds without removing the mask. The canisters have no listed limit to shelf life. In talking to those who seem to know, if the protecting seals are not removed they should store indefinitely. Also the filters are readily available at this time. #C/0569

Bag, Mask and 2 Canisters

\$ 29.95 + 3.00 S&H

2 Sets \$ 60.00 ppd.

Bag Alone #6479 \$ 6.95 ppd.

Extra Canisters #6477 \$ 9.50 ppd.

Mask with 1 Canister

#6476 \$ 19.50 ppd.

1986 MRE Fruit Bar Rations



New 1986 contract. Each ration is packed in a double vacuum packed pouch perfect for camping, hunting, emergency use or for everyday snack. Less than 30 calories in each freeze dried bar. Packaged in February and March of 1986 so they are very fresh. Will stores for seven to ten years. Packages of 36 assorted bars—includes fruit mix, pear and peaches. #M113

36 Bars \$ 14.50 + 2.00 S&H

72 Bars \$ 25.00 + 3.50 S&H

144 Bars \$ 47.50 + 6.25 S&H

975 Bars \$ 250.00 + 25.00 S&H



THE BAG SAVE up to 80%

Survival military bag made to carry the heaviest tools. Made of thick cotton, nylon and has full wraparound 1" rope handles. Two people could carry anything they could pick up in it—tools, sports equipment, etc. I cannot imagine wearing it out. 14" x 30", belt closure at top. Cost the government \$18 each. #0338

Special \$ 3.95 + 2.00 S&H

4 Bags \$ 18.00 ppd. 48 states

Potassium Iodide Tablets



There is no medicine that will effectively prevent nuclear radiation from damaging the human body cells that they strike. However, a salt of the elements potassium and iodine, taken orally even in very small quantities one half hour to one day before radioactive iodines are swallowed or inhaled, prevents about 99% of the damage to the thyroid gland that otherwise would result. Each set has 98 high quality tablets packaged in 7 14-tablet bottles for easy use by family members. #1525

\$ 25.00 + 1.75 S&H

2 Sets \$ 45.00 ppd.



U.S. Military Water Purification Tablets

These high-quality iodine based water purification tablets are available because of a surplus contract. They are sealed in bottles of 50 tablets. Enough to purify 50 quarts of suspect water. U.S. made and packaged for long-term storage. #1922

10 Bottles \$ 14.50 ppd. 48 states

20 Bottles \$ 25.00 ppd. 48 states

Case of 100 Bottles \$ 79.00 ppd.

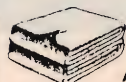
New COLORED MAG-LITE MINI-MAG



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Special \$ 12.95 + 1.75 S&H

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100% English Wool Hospital Blankets

Are Two Corners Worth \$30?

These are brand new 100% English wool blankets that were made for the British and Canadian military hospitals in the 1970s. They are some of the finest blankets made. They are the rich cream white with two thin blue stripes that identify them as the highest quality blanket made. They are 66" x 96" which is the largest blanket produced for the military. English imported blankets of this heavy weight quality can be found in specialty stores for \$95 to \$100. Demilitarized by cutting off approximately 5" of two opposing corners. I almost cried when I saw the cuts—but because of the cuts we can offer them for the unheard of price of only \$29.50. You can easily trim and hem the cut corners and no one but you will know the secret. #0390

Wool Blanket \$ 29.50 + 3.00 S&H

3 Blankets \$ 89.50 ppd. 48 states

For You And Your Family



Emergency 7 Day Supply

This is a newly designed supply that came out of the chaos of the disaster in Mexico. I felt a need for an inexpensive highly portable package that would provide a minimum supply of food, light, heat and shelter for one person for seven days or two people for three days. The supply includes: high quality tube tent, two space blankets, stove and fuel, eight candles (about 40 hours of light), water tablets, waterproof matches, first aid kit and a high quality supply of military food pouches. The food supply contains: 21 rehydrated pouches of meat entrees, 14 cakes, 14 fruit bars, 7 beans with tomato sauce, 7 candy bars and 7 heavy plastic spoons. All these products are fully cooked. All you need to add from the store is a good transistor radio and some water and you can be prepared for the 72 hours it takes to get most government emergency programs in place. #C/0591

Special \$ 55.00 + 9.50 S&H

3 Supplies \$ 159.00 + 18.00 S&H

Cordura Travel Bags

These bags are all made of heavy Cordura nylon with full wrap around nylon webbed carrying handles and a detachable padded shoulder strap. A stiff foam pad inside for extra support and lots of large double zippered pockets. Bags are black in color with soft nylon lining to match. Very stylish and rich looking. Four sizes available.



Flight Bag 7" x 12" x 10"

#0482 \$ 17.95 + 2.00 S&H

Small Travel 9" x 15" x 12"

#0483 \$ 21.95 + 2.00 S&H

Medium Travel 12" x 18" x 13"

#0484 \$ 23.95 + 2.00 S&H

Large Travel 14" x 24" x 15"

#0485 \$ 29.95 + 3.00 S&H

Luggage Set Special

One Bag each size #C/0482

Special \$ 95.00 ppd. 48 states



Model 6019 Wall Security

Cabinet. Will ship UPS. One key-coded anti-drill cam lock. Two adjustable shelves for positioning of small hand guns, ammunition or valuables. Brown baked enamel finish. 18" x 8" x 18" high. Hardware included for wall mounting. #6019

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18-Gallon

High Quality Barrels

Used once—for mushrooms!



These are made of 1/2" high impact plastic and they are food grade so you can store grains, beans, or water in them. They have a 10" screw-on lid with an air-tight seal due to a neoprene gasket. 23" high and 16" in diameter and includes two heavy-duty handles for easy carrying. Good also for burying (even weapons) if care is taken in sealing and packaging. New ones cost about \$29.00 plus shipping—but these are carefully washed and you can get them as low as \$16.50 delivered to your door. They are shipped from Pennsylvania. #0218

18-Gallon Barrel \$ 19.95 + 4.50 S&H

5 Barrels \$ 110.00 ppd. 48 states

10 Barrels \$ 195.00 ppd. 48 states

20 Barrels \$ 345.00 ppd. 48 states

100 Barrels \$ 1650.00 ppd. 48 states

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Super Shoes

Conflux 'shoes for today' . . .

By Bob Clark



WHILE studying and training in the martial arts in the accepted bare-foot and frozen toe fashion retains a certain traditional flavor, it hardly relates to the reality of modern civilization.

In the early 1980s, Ralph Sawyer, an avid martial arts practitioner and instructor, gathered several colleagues together with the intent of developing a shoe for practicing martial arts under modern conditions. The group formed Conflux Inc., and began zeroing in on specific goals. A design was sought which was comfortable for daily casual wear while combining traction, feel and balance qualities required in training and actual combat conditions.

While many traditionalists insist they can fight quite well in their shoes, the folks at Conflux are quick to make a number of observations. Most notably, the importance a shoe has for balance and for possible use as a weapon is often overlooked. A person wearing jogging shoes for example, would be restricted with respect to lateral movements and should he make the mistake of throwing high kicks the

instability could mean death.

For more than three years the engineers and practitioners at Conflux studied the needs and possibilities involved in creating a shoe for training and everyday wear under modern American conditions. Utilizing shoe engineering and manufacturing experts at their offices in the Far East as well as a number of American and European companies, Conflux successfully engineered the RIGHT shoe for today.

Three major concerns were given priority in development of the Conflux shoe. First, the sole contour had to provide rotational freedom to prevent knee torquing. Secondly, the sole contour must provide adequate grip for forward and lateral motion. Finally, the sole compound must be impact absorbent to reduce risk of injury. Conflux shoes represent an excellent compromise on these requirements. The sole features a smooth section from the ball forward allowing rotation. Wave-form treads on the midsection and heel provide grip while the entire sole employs a rather expensive rubber compound which gives adequate friction in the fore portion

FAR LEFT — Conflux offers a wide variety of training shoes which are both comfortable and attractive for every day use. Shown here are the basic KX-240V (a) which sells for \$39.95, KX-210 lace-up (b) \$34.95 and mid boot (c) \$44.95. Leather models not shown are the KX-280V firm leather with velcro and the KX-870 lace-up with soft leather. The leather 280 retails for \$49.95 and the 870 at \$48.00.

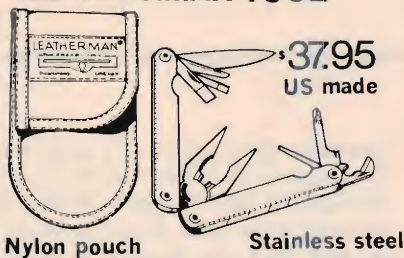
LEFT — Unique sole construction offers stability, power and protection. Smooth area from ball forward (a) allows rotation while mid section to heel (b) has wave form treads for grip. Flat platform gives stability and "feel of the ground." Smooth edges (c) prevent binding and injury.

without binding. This resolves the factor of the first two requirements listed above being contradictory.

A mid-density EVA mid sole which composes the inner structure makes for light weight, is shock absorbent and extremely comfortable. Although the insole provides a "feel of the ground" and no arch support, many people choose to use the shoes for casual wear. The flat platform provides stability while the shell sole construction gives outer edge support for weight shifting and a variety of martial arts movements. The outer edge is smooth, no tread, to prevent binding and injury.

Conflux offers their new shoes in a number of models. The basic shoe features upper construction of ballistic nylon mesh which affords strength, durability and breathability. The basic shoe comes with either velcro closure, model KX-240V, or traditional lace system, KX-210. For the traditionalist a mid high boot, KX-395, with construction similar to the 210 is available with lace system and velcro combination. A pair of leather models are also offered. The KX-280V has a firmer leather and velcro closure while model KX-870 has the lace system and soft garment leather.

We obtained a pair of the new Conflux martial arts shoes and asked one of our local trainers to give us his feelings. After wearing the shoes for two weeks he confirmed that Conflux has indeed developed an excellent training tool that doubles as comfortable casual wear. If you would like to order any or all of the Conflux shoes, contact: Conflux Inc., PO Box 66, Dept. ASG, Orleans, MA 02653. ●

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HIP HUGGER

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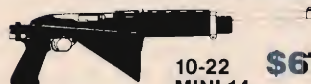
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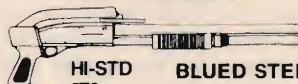
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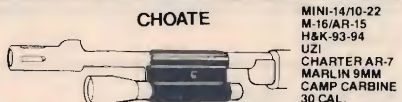
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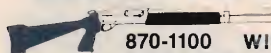
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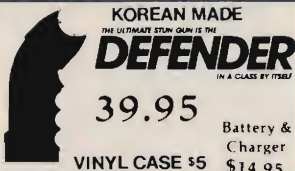
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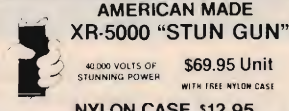
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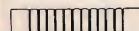
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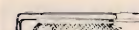
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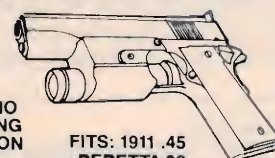


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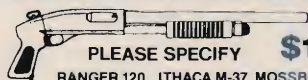
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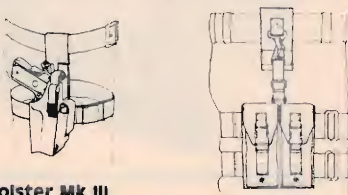
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Lithium Cell Splash-Lite



The new Tekna Splash-Lite key chain flashlight provides 1,200 candle power for 3 to 4 hours. It weighs only 1 ounce and is 2.9 inches long. It's waterproof and tough as nails with a smoke grey translucent case. The lithium cell battery has a 10-year storage life and comes with the Splash-Lite. The Splash-Lite with lithium cell is available for \$9.95 in the continental U.S. from Skyland Reserves, Dept. ASG, P.O. Box 600, Ironia, NJ 07845; (201) 584-1616.

Nightwatch



The Nightwatch is a simple, portable, and quickly installed alarm system which can be used by anyone—no technical knowledge is required. The Nightwatch system was originally produced for law enforcement agencies and small military units and is now available to the public. The system works very simply: each unit comes with two dispensers containing 4,000 feet of a special, ultra-thin, and near invisible trip-wire. The wire is easily strung-out around trees, bushes, fences, cars, chair legs, etc., to create a protected area. When someone (or something) enters this area he will walk through and break the trip-wire thereby

activating the Nightwatch alarm. The wire is so thin (the same diameter as a human hair) and so easily broken that an intruder will usually not see or even feel the wire! The Nightwatch system provides two *separate* circuits which can be used to pinpoint an intrusion. The Nightwatch comes complete with 8,000 feet of trip wire, ear-phone, and an alkaline battery (which can power the unit for five months of 24 hour a day operation!). Retail price is \$75 and it is available from: The Anite Company, Dept. ASG, PO Box 375, Pinole, CA 94564; (415) 724-1003 (Price includes shipping).

New Buck Sheath Knives



Meeting the demand for comfortable sure-grip handles, Buck Knives offers two new fixed blade sheath knives. The Woodsmate (Model 619), left, with black Kraton handle, comes in a black nylon sheath and has the same 6-inch blade, with blood groove, that has made Buck's "Special" so popular. The Fieldmate (Model 639), with olive drab Kraton handle comes in a camouflage nylon sheath and has a 5½-inch blade featuring an emergency saw for cutting wood, metal or ice, and a sharpened serrated clip for cutting rope, wet or dry. For more information contact Buck Knives, Inc., Dept. ASG, P.O. Box 1267, El Cajon, CA 92022.

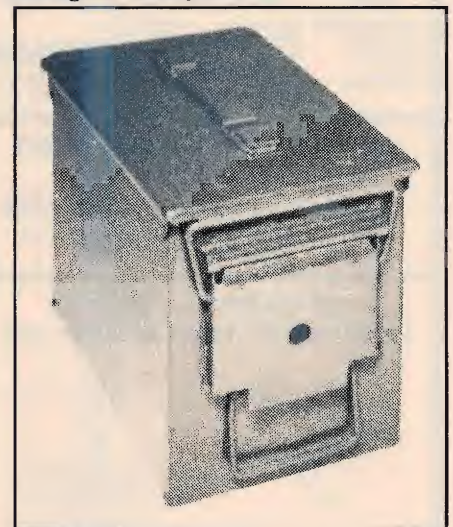
Personal, Property Security



Survivalist Carl Krupp can be a mile away from his rural home and still be aware of

intruders. With a push of a single button he can flood his entire woodland property with light. While he's used a .45 auto pistol for security for years, Krupp explains why he now likes the Heckler & Koch P7 "Squeeze Cocker" auto pistol. He also discusses a number of other self defense weapons: the laws concerning their possession and use; carrying them; specific brands. All this and much more is discussed on "Personal and Property Security," the first in a series of audio tapes produced by Krupp, who has contributed numerous articles to this magazine. "Here we will look at the critical need for careful planning to assure personal and property security," Krupp says at the beginning of the tape. "And while we will talk about hardware available to make the task easier, the real key to security is your frame of mind and mental preparedness. Enhancing these will do more than thousands of dollars worth of hardware." Learn about that "hardware"—guns, lighting, electronic sensing devices, other self defense weaponry and equipment and its uses in establishing a home security program for yourself and your family. For your copy of this 60-minute audio cassette tape, send \$16.95 (which includes handling and postage) to Workshop In The Woods, Dept. ASG, P.O. Box 910, Merlin, OR 97532.

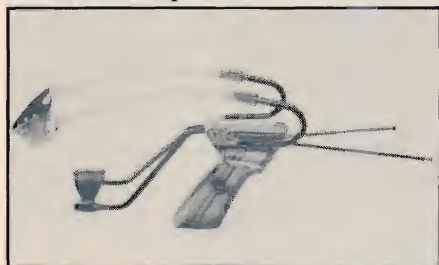
Stronghold Utility Box



Do you need durable, waterproof protection and storage for various activities (including hunting, boating, etc.)? Many people use the Stronghold Utility Box to meet these needs. The Stronghold Utility Box is available in four sizes: small, 11 inches long by 3 13/16 inches wide and 7 1/4 inches deep; medium, 12 inches long

by 6 3/32 inches wide by 7 1/2 inches deep; large, 12 inches long by 6 3/32 inches wide by 10 5/16 inches deep; and extra large, 12 inches long by 6 3/32 inches wide by 13 11/32 inches deep. These all metal utility boxes have removable covers with rubber gaskets which when combined with a closure assembly create an airtight and watertight environment inside for your valuables. The handles for carrying them are collapsible and these boxes can be stacked together to save space. For more information about these sturdy storage containers, contact Brockway Standard, Inc., Dept. ASG, 16 Daniel Road, Fairfield, NJ 07006; (201) 227-5010.

New Diablo Grips



Barnett International has introduced new colors and grips for the Diablo Slingshot. The Diablo is now available in blue or red with new plastic grips for a more attractive eye catching product. The Diablo, shown with optional stabilizers and weights, features a wrist brace and alloy stock. For Further Information Contact: Barnett International, Inc., Dept. ASG, P.O. Box 934, Odessa, FL 33556; (813) 920-2241.

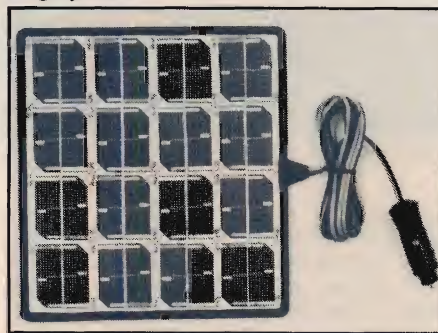
Infrared Automatic Security Lighting



A new security light that automatically turns on to greet homeowners and ward off intruders is being manufactured by Pentron Products, Inc. Designed to provide an element of surprise to unwanted intruders, the Pentron Automatic Security Light also offers peace of mind and a sense of security for residents returning home after dark. The cost of operating outdoor flood lights

is greatly reduced since the only time they're on is when the sensor beam is activated. The adjustable infrared beam instantly detects rapid changes in temperatures (motion) and automatically switches on up to 500 watts of illumination. Beam sensitivity can be adjusted for climatic conditions, and only operates after dark. A built-in adjustable delay circuit turns the lights off up to 20 minutes after the sensor beam has been activated. The suggested list price for the complete unit, less bulbs, is \$124.95. The unit is also available without flood light holders to mount existing flood or security lighting directly to the module; or can be used to activate remote mounted accessories, such as video cameras, remote security lighting, alarm bells, sirens or walkway lighting. The suggested list price for the remote unit is \$112.50. Both models are weather resistant, UL listed, easy to install, can be used as a replacement for existing outdoor fixtures, and carry a one year written warranty. In addition to Automatic Security Lighting, Pentron Products, Inc. manufactures Work Lights, the Hands Free lighting product that obsoletes flashlights, and a complete range of automotive tachometers, gauges, diagnostic equipment and vehicle security systems. For more information, contact: Pentron Products, Inc., Dept. ASG, 1560 Montague Expressway, San Jose, CA 95131; (408) 946-7500.

Mighty-Mac



Parker McCrory Mfg. Co. has produced a new 12 volt solar powered battery charger, Mighty-Mac by Parmak. Mighty-Mac provides a reliable maintenance charge to any rechargeable 12 volt battery and is ideal for use with cars, trucks, farm equipment, motorcycles, RVs, boats, etc. No more dead battery worries! Mighty-Mac starts charging battery in less than 10 percent of normal sunlight. Completely safe to use, absolutely no fire or shock hazard, 100 percent solid state construction and solar cells encapsulated in special rugged weatherproof housing. Mighty-Mac's solar cells are never used up, do not deteriorate

and never wear out. Completely portable and weighs less than 1 pound. Fully warranted. Write for full line color brochure of product offering to Parker McCrory, Dept. ASG, 2000 Forest Ave., Kansas City, MO 64108.

Holster Handbag



Women are looking for a means to carry their weapons, while being dressed in a casual manner. Feminine Protection by Sarah has arrived at a solution to this problem. A handcrafted denim bag is being introduced for the Fall 1986 season. Designer, Mary Johnston said, "Women feel more at ease when they are dressed in a casual fashion—but they need a means with which to carry their weapon." The purse follows the same high standards set by Sarah & Associates of Dallas. The purse contains the inner hidden pocket, in which the weapon is secured. The weapon cannot be seen by prying eyes when the purse is open. The bag is constructed of top quality heavy denim and is hand-crafted at our Dallas plant. The thread used in the manufacturing of the purse is 100 percent nylon—the same used in parachutes. "One of the advantages of using our purses is that they are constructed with pockets on the inside and outside—at no extra cost to our customers," Sarah Le Pere commented. "Other manufacturers of similar bags charge extra for pockets. Ours are included in the basic cost," she concluded. Mary Johnston, designer of the purse said, "Another advantage that our bags have over others is the exclusive wire supported shoulder strap." Johnston continued, "We insert a tough strong, wound music wire into the shoulder strap. This helps reduce the chance of a purse snatcher from cutting the strap and fleeing with the purse." The bags are made in three sizes: Small (8 x 11); Medium (10 x 11); Large (11 x 13). Prices range from \$35 to \$45 with discounts on quantity orders. More information may be obtained from Feminine Protection by Sarah, Dept. ASG, 10514 Shady Trail, Dallas, TX 75220; (214) 902-0200. ●

Contaminated Environments:

NATO NBC Training

U.S. and allied forces size up the Soviet threat . . .

By Richard Bocklet



A German soldier decontaminates a military vehicle during a field training exercise emphasizing NBC medical treatment readiness skills.

THE SOVIETS maintain sufficient stocks of chemical weapons to launch offensive operations at any level they choose. And there is evidence now they're developing new types of toxic agents to defeat NATO gas masks and protective suits. Their strategy calls for limited and collective use of such weaponry by commando-type Spetznaz forces as well as by missiles against key European targets like ports, command centers and storage depots. Surprise, deep-thrust and behind-the-lines operations are major ingredients in their military plans."

The speaker is an allied defense specialist with credentials in NBC (nuclear, biological and chemical) warfare and Russian military doctrine. He summarized for me the current Soviet and Warsaw Pact non-conventional threat against the U.S. and

its European partners. Many of his points were corroborated by intelligence analysts and military authorities I spoke with in half-a-dozen NATO countries over a four-week period.

"The last several years," he continued, "we've observed a change in Soviet tactics during Warsaw Pact exercises. The most important objective is increased deep-strike operations in NATO's rear area early in a conflict. Reviving a World War 2 concept, the Soviets are developing highly mobile and powerful Operational Movement Groups (OMGs) to penetrate NATO territory following an initial breakthrough. The OMG's tank-heavy formations, armored personnel carriers, mobile fire support, fighters and heavily armed helicopter gunships seek to isolate front-line defending forces, while disrupting rear

area logistics and reserves; threatening key command and control centers and neutralizing nuclear attack systems.

"Brigades of many small Spetznaz commando teams would spearhead the deep-thrust attack," he continued. "They train with full-scale mock-ups of NATO nuclear systems, like Pershing II, LANCE and cruise missile sites, along with nuclear storage depots, airfields, and air defense installations. Their success would increase the rate of advance of OMGs, second and third-echelon follow-on forces. This heavy concentration of firepower, either on a conventional or NBC-contaminated battlefield, is a mainstay of Soviet strategy. And their willingness to use non-conventional, toxic weapons has been amply shown in Cambodia, Laos, and more recently, in Afghanistan."

Better prepared to fight in a contaminated environment than any other forces in the world, Russian soldiers receive extensive offensive and defensive chemical warfare training in military academies like Shikhany and 200 sites country-wide. Troops use protective and decontamination equipment in mock chemical attacks for considerable time periods. To show they mean business, Soviet instructors employ live chemical agents which cost a dozen or more lives annually in highly realistic exercises.

With about half assigned to the army, these chemical warfare troops are also integrated throughout Russian missile, naval and air forces, ranging in size from platoons to brigades at the frontline. A force of 100,000 full-time specially trained chemical warfare officers and enlisted personnel would double in wartime. Their responsibility includes chemical defense, radiation reconnaissance, operation of flame throwers and smoke generators, decontamination and deactivation of personnel, weapons and equipment, as well as developing and testing toxins, new systems and gear.

The Soviets deploy chemical warheads on 16 weapons systems including land mines, grenades, howitzer and mortar rounds, multiple rocket launchers, aircraft bombs, surface-to-surface missiles and tactical ballistic missiles. They have the largest fleet of collectively protected vehicles in the world. Main fighting equipment, like tanks and APCs, allow continued military operations across contaminated battlefields via sealed, air filtration and pressurized systems. Riflemen in the light fighting and airborne combat vehicles can fire fully closed up without masks and protective suits, thereby maintaining the optimum in mobility and firepower. Additionally, there are 20,000 special vehicles for reconnaissance and decontamination like the TMS-65 turbojet dispenser—usually used in pairs—which decontaminates



ABOVE—In this photo sequence, a U.S. Army soldier puts on NBC protective gear during training in Germany.

RIGHT—A chemical officer of the 130th Station Hospital insets a hose from the protective mask of an NBC casualty into a canteen as part of the U.S. Army training at Lampertheim, Germany.



a tank surface in under three minutes.

The Soviet Union relentlessly tests, produces and stockpiles chemical weapons far in excess of anything in the West. Russian chemical stockpiles are estimated at over 700,000 tons and 20 to 50 percent of their total munitions. Toxic agents include mustard gases, phosgene, hydrogen chloride, soman or GD, GB and VX nerve agents and VR-55 thought to be soman thickened with synthetic polymer.

Protective Posture—"We take the Soviet threat seriously and in turn are enhancing our protective posture," an allied NBC expert told me. "Although only the U.S.

A German medic treats an "NBC casualty" as part of a field training exercise.



As part of the decontamination process, this soldier's clothes are cut off by a medical aid man as part of training in a mass casualty exercise at Bad Cannstatt Army Hospital, Germany.

NATO NBC Training

possesses chemical deterrents, nations like Britain, Germany, Italy, Canada and France have high-grade individual protective equipment although not always in adequate quantities. The British MK-4 NBC suit has a front opening facility, is fire resistant and comes in disruptive, camouflage patterns. For aircrews, an NBC undergarment is now used by the Royal Air Force as well as the U.S. Air Force. The American M-17A gas mask, which has a drinking capability, is being updated for improved speech facility and enabling a lower breathing resistance. It reduces agents inhaled by a factor of 100,000. We are making meaningful strides but there's much to be done."

He cited progress in incorporating collective protective systems. The German Leopard, and new British Challenger possess one as will the upgraded American M1-EI main battle tank. Large filtration units capable of purifying several thousand cubic meters of air per hour were developed in United Kingdom and France for use in major fixed installations and ships. A ship's citadel, incorporating large parts of the superstructure, is enclosed in sealed boundaries with centrally produced filtered air. This means under NBC conditions a shirt-sleeved environment for sailors to work in. Similarly, fixed-air-base installations are both hardened against blast effects and fitted with collective protection to allow rest and relief as well as air and ground crew planning, briefing and debriefing space.

"Probably portable, non-rigid, inflatable shelters represent the biggest collective protection advancement in the past few years," the NBC expert continued. "Used as liners under normal military tenting, inside barns or other buildings, they provide a contamination-free environment for key command, communications, or medical personnel. And, I should add, there's been a marked increase in training in NBC gear for longer periods, including reconnaissance and decontamination practice and chemical defense procedures."

A vitally important aspect of NBC warfare preparation is treating of casualties. Col. Patrick Hiu, Chief of the Medical Plans Division under the Assistant Chief of Staff for Operations, at the U.S. Army 7th Medical Command, in Heidelberg, Germany, with medical support responsibility for the European theatre, declared: "Small pockets of troops of NBC attack, I think we can handle. There are research and development initiatives in this area and many protective devices already in the field. For example, the casualty bag, made of the same material as an NBC suit, totally encloses the man. The Canadian version has a metal frame to hold the bag away from the face and webbing carrying handles while the British-evolved half-bag with sleeves is for the walking wounded.



Soldiers in protective gear unload a contaminated casualty from a bus ambulance for transport to a decontamination station.

Generally speaking, in such an attack, we'd decontaminate the patient in a collective protection center. Once assessed as clean he's moved to a sterile Second Echelon Medical Unit for categorization and appropriate treatment."

Decontamination—If a man suspects he's in a contaminated area, his M-256 chemical agent detector kit tablets and rubbing patches can be used. M-9 paper turns color when an agent is present while M-8 paper indicates the threat category, for example, mustard gas or VX or G-type nerve agents. His M-258 decontamination kit contains towelettes to wash the skin and supplies of atropine and 2-pam chloride—the only nerve gas antibodies.

Nerve agent exposure symptoms include pin-pointing of the eye's pupils, nausea, convulsions and loss of bodily control and a diminution of respiratory rates. Timely self-aid and personal decontamination is the individual's responsibility, or if incapacitated, his buddy's. With nerve and blistering agents speedy decontamination is essential or further measures become useless.

Maj. Samuel Mims, Chief of the 7th Medical Command NBC Plans and Security Branch, explained procedures: "Medical aidmen must rapidly determine exposure to chemical agents—what agent was received and how many antibody doses, if any, were taken. They give nerve and blood agent antibodies, treat for shock and wounds that could be life-threatening, generally attempting to stabilize the patient under extremely trying conditions. Then he either recovers and receives sustaining treatment at a clean area hospital or dies."

Maj. Mims stresses simulation and practice administering to casualties under NBC conditions. "It's not enough to just work at the hospital everyday," he said. "Every time a soldier performs a task, he or she should think, 'How would I perform this task if I had a protective mask or other protective garments on?' 'Could I give injections while wearing protective gloves?' The answer is, it gets easier with practice."

Dr. Robert Mosebar, the Army's primary medical officer for NBC combat developments, stated, "One of the hottest issues now in military circles is NBC attack. And the U.S. Government is pumping in money and manpower to meet what it regards as a real threat."

He declares Army medical personnel are being trained more thoroughly than ever before to meet such an eventuality. He adds that radiation has been used in medical treatment for years and is hardly a new or mysterious entity. "On the Battlefield, our doctors have been taught to use dosimeters to measure immediate radiation exposure and then to monitor the lymphocyte count over a 24-to-48-hour period. Using counting chambers and microscopes, doctors could extrapolate the dose received." Soldiers exposed to under 1,000 rads of radiation, he declares, if protected against inflection in a hospital environment and given blood and bone marrow, could recover in five or six weeks.

Although allied military and medical authorities alike dread the thought of any NBC elements introduced to the battlefield situation, Dr. Mosebar seemed to sum up the general feeling on the need for readiness. "By having things reasonably planned out, we have a chance of bringing some order out of chaos." ●

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SURVIVALIST DIRECTORY

THIS IS A CONFIDENTIAL listing of survivalists who wish to become known to others of like mind. *American Survival Guide* will accept properly coded mail and forward it to the coded addresses without charge. *American Survival Guide* accepts no responsibility for the contents or results of these confidential communications. Mass mailings are not permitted.

ASG 1101
Livingston, Montana, couple seeking contact with individuals from nearby communities who are interested in survivalist lifestyle, guns, and alternative energy. No Bible spouters.

ASG 1102
Grand Rapids, Michigan, low profile survivalist would like to join and start family "hunting camp" in west Michigan.

ASG 1103
Price, Utah, would like to either start or join a survivalist group.

ASG 1104
Ft. Leavenworth, Kansas, ex-Air Force pilot, geologist and wife, registered nurse, seek other individuals interested in forming a highly selective and exclusive survivalist group. Building a self sufficient, fortified, armed survivalist encampment in east Texas, 50 acres, free and clear, all taxes paid, already available for this purpose. Need honest, skilled, and professional personnel for this project. Paramilitary, conservative, gun skilled, patriotic Americans only need apply. Females welcome.

ASG 1105
Central California, seeking contact with individuals and groups in United States to establish communications link, exchange information and skills.

ASG 1106
Boones Mill, Virginia, two brothers, emergency medical technicians, firefighters, seek correspondence with survivalists of all ages. Wish to tap new information sources and exchange information worldwide. Also wish to form or join a group within 50 miles of Roanoke. Open to all except crazies or kooks.

ASG 1107
Kinston, North Carolina, Lee's Survival School is looking for permanent survivalist personnel to form survivalist group in this area. Only serious inquiries please.

ASG 1108
Seattle, Washington, would like contact with survivalists that have the desire to join a highly trained unit of men and women totally prepared to survive Armageddon. If you feel you're qualified please respond to this ad with complete confidence and trust.

ASG 1109
Yadkinville, North Carolina, am interested in establishing a mercenary type group small unit tactics, training school in cooperation with other survivalists. Want to become known to others of like mind.

Address response letters as follows:

American Survival Guide
ASG 0000 (Code Number, As Above)
2145 West La Palma Avenue
Anaheim, CA 92801

Your letters will be forwarded to persons listed within two days of receipt. *American Survival Guide* accepts no responsibility for loss or delay of inquiry letters. Contact letters that do not carry the appropriate code number will be discarded.

Those who wish to be added to the directory listing, please send names and addresses to *American Survival Guide*, 2145 West La Palma Avenue, Anaheim, CA 92801. The listing is free. ●

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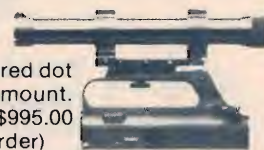
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1986 Giveaway:

Illinois Man Wins SAR-48 Rifle



Heber J. Willmott, right, receives his prize at Botts Sporting Goods store in Chicago.

A 44-year-old former Marine and Vietnam veteran is the winner of *American Survival Guide's* 1986 Giveaway.

The entry form of Heber J. Willmott, a plastics manufacturing company employee from Danville, Illinois, was drawn from among the entry forms of approximately 1,000 contestants in the 1986 Giveaway contest.

Willmott, an *ASG* subscriber who likes gardening, fishing, horseback riding, shooting and hunting, wins a Springfield Armory SAR-48 battle rifle in .308 Winchester caliber. The SAR-48, a copy of the famous FN FAL rifle, and accessories provided with it (two 20-round magazines, bayonet and scabbard, magazine loader and blank-firing adapter), are valued at \$900.

Watch for the next *ASG* prize giveaway contest in upcoming issues. ●

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K.I.S.S.:

Simple Wilderness Living

If it won't go into your pack it doesn't go . . .

By W. Ed Poe



One-half surplus Army shelter strung on line between trees is more than enough roof for the backpacker or canoeist.



A lightweight, easy-to-pitch dome tent can be carried if you desire to sleep one step above the K.I.S.S. camper.

WHEN most people hear the term, "family camping," they immediately visualize a vehicle loaded down with modern day camping equipment and towing a pop-up tent, or a large mobile camping rig that has to be plugged into an electrical outlet to create a homey campsite

within the wilds of a blacktop campground.

Thanks, but no thanks. And, family camping isn't always as pictured with the tons of top grade, expensive and malfunction prone gear, iron cookware, coolers or folding camp stools. Some families do camp using the old K.I.S.S. (keep it

simple, stupid) system: If it won't go into your pack, it doesn't go.

There are those in the camping world that hold to this belief, even if they are canoeing or driving right into a campground. "Why," You are asking yourself, "Do they do that?" It is very simple. They desire to retreat from all of the modern-day hassles, be as close to nature as possible (without becoming totally primitive) and normally be alone to enjoy the daily adventures of the great outdoors. Their desires are as simple as their gear.

Most K.I.S.S. campers look at the outdoors and camping as true life adventure. The sight of a western sky at sunset, a deer along a stream or even a raccoon stealing the freeze dried trail foods is an adventure. You are not likely to have these adventures while camping in a 10-wheeled mobile vehicle or in a lot of our mass produced campsites within the sight of an interstate highway. Certainly, there are exceptions to what I've said, but very few. K.I.S.S. campers go for the real backwoods, rivers or streams, and in a fashion that would make Lewis and Clark envious.

The blacktop campers do not want to leave the ice, clean water, stereo or TV behind. Suits me, because it gives me more room to camp in . . . my way.

I will admit that my way is no different than many thousands of campers in the U.S. I use the best, lightest, most inexpensive, smallest, free-from-hassle-and-malfunction equipment I can buy or make myself. If it doesn't fit into my surplus U.S. Army large ALICE pack, hang around my neck, over my shoulder or clip onto the pack, then it stays at home. Even when I have to live out of the back of my camper shell, as a matter of employment, my rule stands. My heaviest load as a civilian has been 61 pounds, which included rations for six days, survival firearm, ammo, fishing gear and a small flask of Kentucky bourbon. The fishing gear (break-down type) and bourbon were for pleasure. I was working in an area that was known to have a lake full of Peacock Bass and I do like a little night cap, especially after a few hours of fishing in the dark.

Today, I have a pack loaded for the same period of time, same conveniences (plus some) that weighs less than 55 pounds. The weight reduction is due to the availability of more compact and lighter-weight gear and foods. Next year it may get



A compact water system can be made from the above containers, iodine tablets, and Pocket Purifier straws.



Large ALICE (LC) packs are outstanding for K.I.S.S. campers. This one has a custom frame.

lighter due to further advances in outdoor living.

Simple-Life Method—If one wants to camp using the simple-life method, they must work continually to upgrade their gear, yet reduce the weight. Today's mail order catalogs, specialty stores and military surplus outlets are running over with the small camping equipment. Even though small, it can be used around the house as emergency gear.

Even though a canoe will carry more than enough supplies for several days on water, I still stay within the one-bag limit. My canoe bag is a 3.8 BILL'S BAG that actually carries more gear than my ALICE pack. Since I like to take extra dry clothes and footwear on canoe trips, the extra space comes in handy. However, the camping gear and food remain fairly consistent with the backpacking items. One reason I like the single bag objective when canoeing is so that I do not have to spend any time unloading tons of gear, and then the following morning, reload it. After all, I am out there fighting deer flies, "skeeters" and chiggers for relaxation, not back-breaking work.

To me, setting up a campsite is work. The least amount of time I can spend on it, **the better. Same goes for cooking and firewood chopping.** Weather permitting, I rarely set up a real camp. I just find a spot and stop for the night.

Instead of a two-burner stove that I have

to carry extra fuel for, I cook on a small compact/folding Tommy Cooker that uses small Hexamine fuel blocks. In most cases, I don't even start a campfire. If it isn't cold enough for one, why waste the time. If I want to sit around a light, I strike one match and light my 8-hour candle lantern. It's all the light anyone will need for a campsite, unless they plan to perform some serious surgery. For walking to the latrine at night, I use a very small Mini Mag-lite. Why lug a flood light into the wilderness?

To dig the latrine, I might use a tri-fold shovel, backpacker's trowel, or the Navy MK III Combat Knife which I always carry with me. The toilet paper that goes into the latrine or as some call it, "cat-hole," are individual rolls preserved in small plastic zip-lock bags. I do this little chore prior to departing home. No need to carry a whole roll, if not necessary.

Today's choices in pre-fab shelters are never ending. You can buy tents that sleep one person, or tents that sleep eight. Personally, I prefer no tent at all. However, I do carry one of three shelters, depending on the known terrain: 1) Army half-shelter, 2) trail tarp or 3) large heavy duty nylon hammock. Either of the three, used in conjunction with a poncho liner, poncho and short sleeping mat makes a nice home for the evening. Total wasted time to unpack, set-up, take-down and repack is about 10 minutes. If it takes more than one person and more than 20 minutes to set up a tent, then you have failed to leave the hassle at home.

Attempting to take ice chest, jugs of water, bags of water or large canteens of water into the wilderness is a waste of time and effort. I have seen canoeists with two coolers, several jugs of water and canteens slung over their shoulders. Why not use the water the canoe is floating in? I would rather have it taste like iodine than have to lug 32 pounds of water just for cooking. If you want a drink, then carry a 2-ounce Pocket Purifier straw. Simple enough.

Eating—When it comes to eating, I am usually the first in line. I love good steaks, sausage and eggs, pork chops, boiled corn and just about any other food you can think of. Before going on a camping trip, I eat my fill, gain a few pounds and then lose it all in the wilderness. If I wanted all of the foods on the trail, which I enjoy eating at home, I would have to have a pack mule train. Regardless of what a lot of outdoors people say, trying to be a gourmet cook on a river bank is a waste of time cooking and cleaning up the mess. Just think of the fishing time you can lose by just having to scrub an iron skillet or one of those 21-piece cook sets. I pass.

A.G.I. mess kit, canteen cup and some plastic spoons are all the kitchen gear anyone needs. Boil the water, drop in the food packet, then eat. Or, if you prefer, fry a few slices of good old Spam. Add crackers and a pop-top can of pudding. If

that menu tends to turn your stomach, then you better stay on the blacktop, go to a fancy restaurant or stay at home.

If you think what I have described so far is not "family camping," you are wrong. I have seen entire families, kids and granny, on the trails and river banks living under those conditions. They love it, especially the kids. Having their own gear, fixing their own food and generally "doing their own thing" excites the hell out of them. If they want to carry in a soft drink in a can, so be it. It's their back and sore muscles. This is the great part of individual K.I.S.S. camping. Be it solo or in groups, simplicity should be the first priority. Gear and food should be limited to what they can carry on their backs or in a single canoe bag. This method will give you more time to fish, watch the wildlife or chase those blasted 'coons out of the freeze dried foods.

If by chance you happen to be a person that enjoys privacy on the trail or river, I suggest all purchases of gear and outdoors clothing be camouflage or at least a subdued color. Stay away from the bright yellows, orange, red, blues or any other non-blending colors. There is nothing worse than getting your camp set up for the night and then having people "drop in." "Hi. Saw your camp and thought we would visit."

I have seen camps and hikers that look more like roaming circuses than camps and hikers. Blending into the environment can provide the privacy you seek from the wilderness.

On your next trip . . . K.I.S.S. ●



Military MRE meals and Tommy Cooker reduce weight and bulk.



Surplus military mess gear may add a few ounces of weight to your pack but it is reliable and sturdy.

Colt AR-15 A2:

HBAR Sporter Rifle

This heavy barrel version of the AR-15 A2 is deadly accurate and a pleasure to shoot. It fills the need for an assault sniper rifle . . .

By Jim Benson



weight rifle, but its weight is similar to other modern military rifles such as the FN FAL or the M14. The extra weight helps hold down recoil and makes it possible for more rapid resighting of the target when multiple shots are fired.

The HBAR, like the M16 A2 and AR-15 A2, is chambered for the new NATO SS-109 5.56mm cartridge with its 62-grain bullet. This heavier bullet is supposed to be more accurate at longer ranges than the regular 55-grain .223 bullets currently on the market.

The fully adjustable rear sight is calibrated to make the most effective use of the new SS-109 NATO cartridge. But since this cartridge is not yet commonly avail-

(Continued on page 62)

WHEN Colt's AR-15 A2 HBAR Sporter rifle finally arrived on loan for evaluation, I was elated.

Here it was at last. The famous HBAR (for "heavy barrel") which was selling out as fast as it was supplied to dealers. We'd been trying to get our hands on one for months but, unless we wanted to pay the full retail price, there was not one HBAR to be had. Labor trouble at Colt had slowed production of these rifles for a while, but Colt finally came through and we had our test gun. And what a gun it is.

The AR-15 A2 HBAR Sporter is the latest addition to the M16/AR-15 family of weapons and fills the need for a reliable .223 caliber (5.56mm NATO) assault rifle which can be used in match shooting or sniping.

The HBAR is a mix of the best parts of several of the M16/AR-15 rifles. The upper receiver is from the M16 A2. The lower receiver, trigger mechanism and bolt carrier assembly are from the AR-15. Space Age hard plastic buttstock, pistol grip and cylindrical handguard are from the AR-15 A2. But of course the most significant difference between the HBAR and its siblings is its 20-inch heavy barrel, which makes this weapon far more accurate than its predecessors.

While the AR-15 A2 weighs about 7½ pounds empty, the HBAR tips the scales at nearly 9 pounds empty. This is no light-



ABOVE—Field stripping is a fast and fairly easy process with the HBAR.

BELOW—Although the test HBAR was fitted with a DTA/MIL BRAKE muzzle brake, the standard closed-bottom bird cage flash suppressor that comes with the HBAR does a great job of reducing recoil and muzzle rise.



The square post front sight is adjustable for zeroing the rifle.



AMERICAN
SURVIVAL
GUIDE

Frozen Wilderness:

High Sierra Trek



Guide Allan Bard leads members of the expedition toward Forester Pass.

Testing the latest in cold weather gear and a special nutrient formula designed to replace regular food, a group of professional athletes travels by skis and ice axes over more than 100 miles of the rugged John Muir Trail . . .

By Michael Colgan, Ph.D.

PHOTOS BY REX KEEP

(The author is director of the Colgan Institute of Nutritional Science, 565 Pearl St., Suite 301, La Jolla, CA 92037; (619) 454-1696. The institute does nutritional research and provides nutritional supplements and training programs for athletes—The editors.)

IN 1982, *Omni* magazine profiled the nutrition research of the Colgan Institute. One aspect of our work they covered was the Crux Project. This project involved design of a nutrient pill which can completely replace food, an item of obvious value for survival in contaminated areas. Our interest was more to show that nutri-



Day one. Mt. Whitney at 12,500 feet. Goodbye civilization!

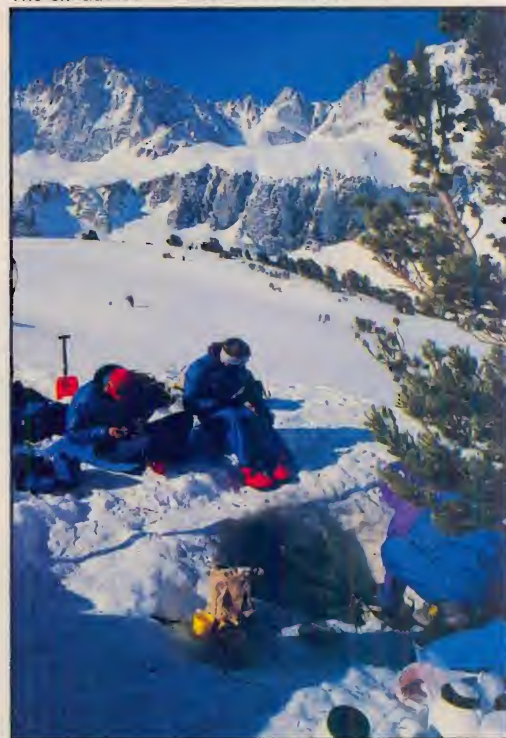


Dawn on day two found the group huddled in the lee of a cliff.



Camp at treeline 11,200 feet the morning after the storm on day five.

The exhausted travelers rest after the storm.



tion science had progressed to the point that such a pill could be made.

Of course, since the 1960s hospitals have kept patients who cannot eat alive on total parenteral nutrition, that is, nutrient fluids fed intravenously. But "kept alive" are the operative words. None of the patients we have examined were in good nutritional shape. Many were made very sick by the nutrition itself. Why? Because a natural varied diet contains microscopic amounts of essential elements which are not usually included in man-made nutrients. Until the late 1970s, science did not know for example, that chromium, nickel, tin, and arsenic are nutrients essential to human health. Yes, arsenic! Without minute amounts of these and other elements in the diet, you gradually sicken and eventually die.

By 1982, we thought we had the problem licked, and stated that humans could live for weeks at a time on nothing but nutrient pills and water. The *Omni* piece brought thousands of enquiries including a proposal by the U.S. Army that we design a pill for them. Their interest was in extending the range of forward troops from its present level of about 75 miles to over 200 miles. Weight of food is the limiting factor. The proposal jockeyed back and forth for three years only to die in Pentagon cuts in 1985.

In November 1985, the Army came back to us again. Fed up with the shilly-shally we challenged them to climb and run the mountains of the John Muir Trail, 220 miles over the Sierra Nevada Mountains in winter snows, mostly at altitudes over 10,000 feet. They would put up a crack unit and use all the food and support

High Sierra Trek



Making it down the chute on day six.

teams they wished. Some of the athletes on our program, plus myself, would complete the project with no food or support—on just pills and water.

The Army finally declined, saying that official policy forbade competition with civilians. We decided to undertake the project anyway, because such a feat is beyond 99.9 percent of people even when fully fed and resupplied en route. To attempt it on pills and water, with no supply drops, would provide a telling demonstration of recent advances in nutrition science.

Over 200 endurance athletes asked to participate. We chose the toughest. The lone woman, Jaqueline Shaw, is one of the top ten triathletes in the world. We also picked ultradistance athlete, Emile van der Werwe, second in the 1986 Pacific Crest 50 mile race, which he did as a *training run* for our project! We had two alti-

tude trained athletes and skiers from Vail, Andre Boesel, twice winner of the Alpine Triathlon and champion runner Rex Keep, our official photographer.

We got one of the top guides in the world, Allan Bard of Alpine Expeditions. When he heard what we planned, he changed his schedule to guide us himself with the comment, "You guys need help!" I made up, running 50 to 60 miles a week, including two marathon races, in training for the trip.

All of us, barring the guide, received extensive medical tests before being confirmed as fit to participate. With generous sponsorship, we put together the latest in ultralight gear, true mountain survival gear. We settled on Karhu full metal edge cross country skis with Rotefella extreme bindings. Poles were the telescopic ultralight Habeler Extremes which, slotted together, form a 9-foot avalanche probe.

They also have a separate snowshovel head. Tents were the spartan, ultralight Chouinard Pyramid, a catenary cut pyramid shape, without floor, which can be used with skis as poles and skipoles as pegs. We took thin Evazote pads and North Face Expedition four season bags. Some members used North Face Glissade packs, others Chouinard climbing packs.

Clothing was the best layering system we could devise. We had a choice for underwear of Terramar silk, Patagonia Capilene, North Face Thermax, (the new DuPont fiber) and Omni International Rhovylon (the new British fiber) or any combination of the four. During pre-tests for the trip at Vail, Colorado, we rejected polypropylene. None of the three types of polypropylene we tested lived up to the advertising claims either for wicking perspiration away, or for insulation, or for comfort.

We took wool sweaters but no down jackets, a bad mistake we were to regret. For outer waterproofs, we opted for Patagonia H2NO+ Featherweight gear. Our pretests ruled out Goretex which proved neither waterproof nor sweat releasing, despite all the advertising claims. Unlike most gear reports in sports magazines, which rely on anecdotal impressions, we measured moisture content, insulation, wicking and waterproofing scientifically, using sophisticated instrumentation. Results show that some of these materials are not all they claim to be.

The nutrient pills we used, dubbed Sustain SP, contained a balanced mix of all



All the comforts of home at Piute Pass on day seven.

nutrients required for healthy human life, including 22 vitamins and co-factors, 18 mineral forms, the two essential fatty acids, gamma linoleic and linolenic. Energy was built in with extracts of complex carbohydrates taken from grains and legumes. Protein was provided by a balanced mix of free form amino acids in the exact ratios used by human tissue. We also added psyllium extracts and digestive enzymes to help keep elimination regular in the absence of the bulk of normal food. We cannot publish the full formula here because, since the trip, the option on Sustain SP has been taken by a major manufacturer. A limited supply is currently available from the Colgan Institute.

The Trek—Now, we are camped in a freezing night at the foot of Mt. Whitney at the road end west of Lone Pine, California, on Route 395. This is our last meal. Dawn tomorrow we go.

The John Muir Trail runs 220 miles from the top of Mt. Whitney (14,495), highest point in the lower 48 states, to the Yosemite Valley. But first you have to climb Whitney. Local climbers we met at the guide headquarters gave us less than a bug in a blender's chance of making it to the summit first day.

We aimed for much more than that, hoping to top Whitney and go another 15 miles down into the Sierras, a land of spiring granite peaks up to 14,000 feet and sheer canyons 5,000 feet deep. Winter snowpack is estimated at 12 to 15 feet, and we have already waited two weeks while the worst of the avalanches, some 70 in all, came down. **WE ARE READY!**

Dawn and a "breakfast" of pills and water. We jog a thin trail through forest cover, sweating heavily under packs and ski gear. Soon we hit snow and don skis and skins. We skin up a steep chute to Boy Scout Lake for a pill "lunch."

At 12,000 feet snow turns icy and skies barely hold on steep traverses. Breathless in the thin air, we press towards the summit in lengthening afternoon shadows. Finally, we are forced to shed skis and ice-axe our way the last 500 feet to the pass. Progress is slowed to yards per hour rather than miles per hour.

We had not anticipated such conditions. We have no crampons and only one short rope. Allan Bard, our guide, is the only climber among us. He strolls around calmly picking the best lie, seemingly unmindful that one slip is a death fall. He staggers the cuts so that any one of us falling will not take others with him. His calm and unerring skill in all situations was to become our most valuable asset.

Finally, we top Whitney and hustle down to get off the peak before nightfall. We do not make treeline. In closing weather we camp cold in the lee of a cliff. The two Chouinard Pyramids are up in five

minutes and we are in bags and melting snow for water, with the excellent Hank Roberts mini-stoves. We spend a freezing night from the intense cold coming off the snowpack.

Next morning in fine weather, we ski easily down into the Kern Basin and camp at Wallace Creek by 2 p.m. We layover to recover. So we made 25 miles in two days, a bit over half our planned distance. It becomes clear that conditions will prevent us from making Yosemite in 10 days. The snowpack is so thick that all trails are obliterated. Our Alfa Cornice boots are too light to hold edges on the long steep traverses, and certainly too light for climbing. As the athletes have other commitments beyond the 10 days, we have to shorten the trip. We make a new goal to reach the rendezvous with the doctor and the film crew who will film us at Piute Pass. This makes the trip 110 miles, half the planned distance. The Sustain SP is working well and we have high energy with no sign of side effects from fasting or from altitude sickness.

By dawn on the fourth day, we still don't feel hungry. But sleep is becoming critical. All of us suffer badly from the cold, despite layered clothes and four season bags. How we wish now for those 4-pound down jackets left in my garage to save weight. The layering works perfectly while moving and generating lots of heat. But stopped, especially at night, the synthetics under a wool sweater and weathersuit are no match for frozen winds.

Nevertheless, energy remains high as we climb the long steep to Forester Pass. Skis fail to hold us again, and Allan skitters down 10 feet of ice before determined edging stops the slide. We ice-axe up laboriously into a freezing snowstorm. The Patagonia H2NO+ Featherweight suits are remarkable. Weighing only 14 ounces, they stop everything, yet somehow release perspiration. We eat and sleep and live in them. Allan hustles us over the pass in gathering gloom. Emile loses footing, slides and rolls down a thousand feet to a run out on a frozen lake. The black dot gets up and waves—uninjured. We all skitter down, desperate to get off the peak before night. Blinded by sleet we then ski slowly down the five miles to treeline.

Camped in the storm with temperatures 25 degrees below freezing and windchill doubling that, we crouch over the fire behind hasty igloo walls thrown up to protect the tents. Sustain and hot water provide poor comfort. We spend a miserable night. Rex has frostbite in both feet and I shiver uncontrollably. Allan (who did bring a down jacket) waddles about in jacket and sleeping bag placidly heating water bottles for us to sleep with. What a guide!

Next morning Andre's eyes are swollen almost shut, the result of insufficient side

frames on his glasses letting in wind and ultraviolet light. Others of us are wearing Oakley glasses which prove superb in design and comfort but not dark enough for mountain glare.

Good Shape—Together with Rex's frostbite and a ricked back I suffered by falling over a frozen waterfall, we are not in the best shape to race for the rendezvous at Piute Pass. Only Allen and Jaqueline are tops. We decide to swing east and exit the Sierras at Kearsarge Pass to go down to Bishop for a medical check. At a local doctor's, we all proved to be in good shape, though having lost up to 10 pounds in weight.

That night in Bishop we break the food fast with a hearty dinner. The Sustain had maintained us five days and nights, days of 12 to 14 hours climbing and skiing in freezing temperatures all at over 10,000 feet altitude. Though not as long as I would have liked, it was a fair test. We resolve to do a real long one next winter—with down jackets and proper snow and climbing gear.

After a good night's sleep in *real beds* we head out at dawn up Piute Pass, sparking with energy. Our rendezvous with the film crew is a semi-permanent shelter maintained by Alpine Expeditions above the pass on an exposed ridge at about 12,500 feet. These Hansen Weatherports, as they are called, are coated canvas or tubular aluminum frames, unbelievably tough and weatherproof. They were designed for the Alaskan Wilderness and are available through Hansen Weatherports, Gunnison, CO 81230, (303) 641-0480.

Flying up the pass on skis, we make the weatherport in high spirits showing no signs of accumulated fatigue. Outside a raging wind, inside the shelter we party complete with wine and clams and cheese hors d'oeuvres. Next day we head down to blood tests and check ups. Everything checks normal for all of us. We all have lost bodyfat—the formula was designed to facilitate use of bodyfat as fuel—but blood status is well maintained and we all feel great.

Two days later, Jaqueline finishes second in the Japan Ironman Triathlon and Emile does a 40-mile training run with me accompanying him for the first 20. Both Andre and Rex report exceptional workouts, and we all use Sustain SP as a supplement for our training.

There is no doubt that the formula can maintain people in good health and high energy for at least a week, without food, under extreme environmental conditions and extreme exercise of 12 to 14 hours a day. Now the Army is really keen again. We have just received a letter from Lieutenant Colonel Dr. Eldon Askew of the Military Nutrition Division requesting full details of the trip and formula. The Crux Project continues . . . ●

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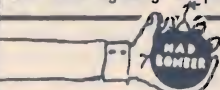
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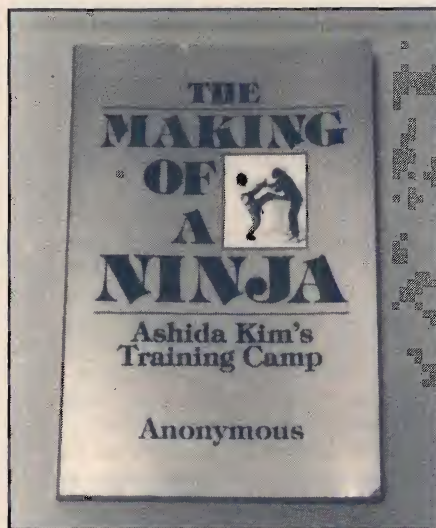
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Book Reviews

(Continued from page 10)



The Making of a Ninja, Ashida Kim's Training Camp, anonymous; Paladin Press, Dept. ASG, P.O. Box 1307, Boulder, CO 80306; (303) 443-7250; 173 pages, paperback; \$10 plus \$3 postage and handling.

The author, who describes himself as an anonymous agent sent by a rival organization to spy on and ultimately sabotage Ashida Kim's Ninja training operation, takes the reader into Kim's camp to experience the training given to selected recruits. The author is impressed and eventually won over by Kim's operation and confesses and offers his services. With the permission and assistance of Kim's staff of instructors, the author wrote his book, he says "to give those who desire to know about ninjutsu a glimpse of this esoteric world." The reader will learn the techniques of ambush, escape from an armed sentry, evasion of an enemy's attack through *ukemi*, or falling, and battling with the most basic of weapons, the bo or staff. The reader will be introduced to the arts of invisibility: cover, concealment and camouflage, and all other necessary survival skills for a ninja operating in the field: finding water, shelter and food; making fires; cooking; navigation; constructing secret caches and hideaways. Well illustrated and written in a clear and descriptive manner, the book is divided into four days the anonymous author spent in Kim's training camp. In summing up his experiences, the author states, "So it was that we had stepped out of our normal lives for a short time, escaping into that childlike state where it is permissible to play chase (jogging), follow-the-leader (obstacle course) and army (maneuvers, drill, and survival training). In the process, we learned something about humanity and fieldcraft, as well as the shadowy surreal world of espionage as it has been taught since ancient times to the mystic warriors of the night—the Ninja!" ●

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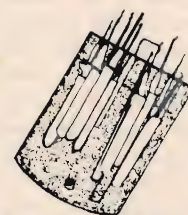
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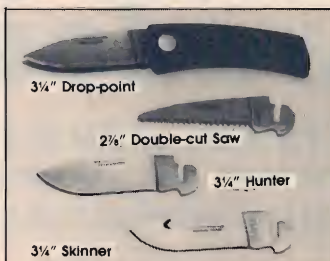
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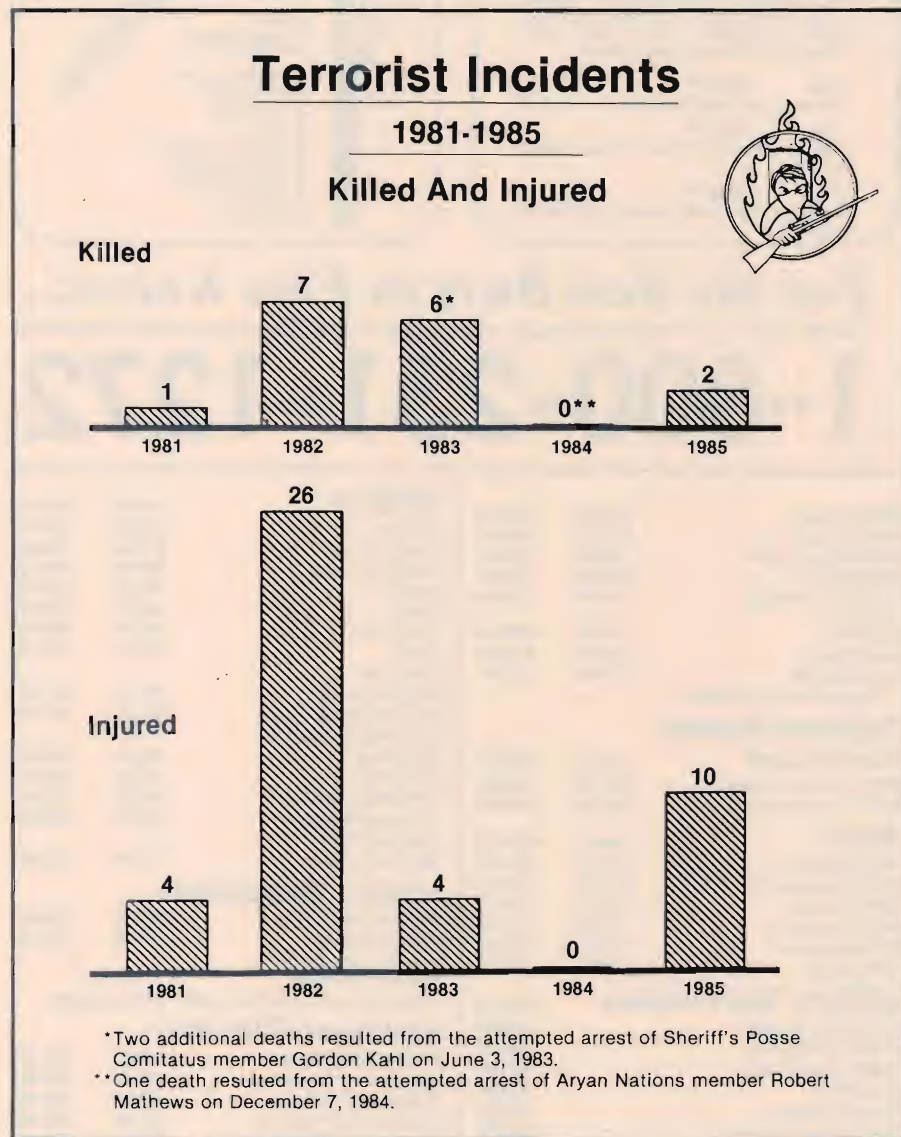
Right-Wing, Left-Wing:

Private Armies

The more dangerous of the PAs hide under the auspices of religious organizations and use this front to protect themselves from investigations . . .

By Carl H. Yaeger

ILLUSTRATIONS COURTESY OF THE FBI TERRORISM ANALYSIS CENTER



AT a July, 1986 conference at Hayden Lake, Idaho, the representatives of the leading white supremacist groups in America announced plans to take over the states of the Pacific Northwest, secede from the union, and create an all-white republic which is free from Jews and non-whites. This is to be accomplished by the year 2,000 peacefully, if possible . . . violently, if necessary.

Almost a thousand miles to the east, a group which claims to be a growing force of patriot-guerrillas has claimed the village of Tigerton Dells, Wisconsin, as their own . . . as the national headquarters of a mass paramilitary movement which will sweep away the "Jew-controlled" national government by the end of the century.

To the south, on a remote farm on the

Missouri-Arkansas border, a squad of militiamen, complete with military weapons and wearing camouflaged BDUs, go through a tactical exercise in order to become more proficient killing machines for the Prince of Peace.

Back in Hayden Lake, the Prince of Peace can also be found in a picture frame in a building which is a combination church and fortress. Companion to Christ, is a picture of Adolph Hitler. Beneath these two unlikely companions, uniformed men pay them reverence by standing, head bowed, and the right arm raised stiffly in a Nazi salute. Outside, a watch tower guards the compound of the Hayden Lake church.

The growth of private armies (PAs) during the past 20 years reflects some of the deep-seated fears which some people have about the future of America.

At a recent PA convention in North Carolina, literature was passed out by various groups on the impending economic collapse of the U.S. This topic is, perhaps, the common theme of all PA publications. They have developed scenarios of how modern-day Americans, viewed as soft and addicted to the technological "good life," would deal with economic disaster, and have concluded that American society would disintegrate into chaos.

Take food for example. PA writers have pointed out that most American cities have less than a week's food supply. In a severe crisis, such as the pre- and post-attack phases of a nuclear war; a race riot, or natural disaster, the search for food will be priority number one. The race riots of 1965 and 1966 in Los Angeles, Chicago, and Cleveland serve as the models for economic collapse scenarios to the PA philosophers. When there is no food, the mobs will take to the streets again, loot what they can, and then burn the distribution centers and stores. When the food is completely gone, the hunger-crazed mobs will head for the countryside in a frenzied search for food. Law enforcement agencies will be overwhelmed and it will be up to the PAs to herd people back into the cities to restore order. If that proves impossible, then measures will be taken to keep the mobs from invading the retreats of the PAs.

The Federal Emergency Management Agency (FEMA) has the awesome task of protecting the American population in the case of disaster. The name of the game is crisis relocation. Each urbanized area has a designated site in a rural region where the population would be relocated. Many of these sites are on, or near, the claimed turf of PAs. It is in the crisis relocation phase of any form of disaster that FEMA, and federal and state law enforcement agencies, see the threat of terrorist activities from the PA warriors.

PA Plans—An examination of PA contingency plans reveals that during a pre-warfare mobilization, paramilitary forces would take to the field and commence actions against the military, law enforce-

ment units, and their fellow citizens. This would include harassment tactics such as cutting security fences, destroying remote communications relay centers, the destruction of power and transportation facilities, and perhaps sporadic attempted sabotage of nuclear missile sites in order to prevent the escalation from going from a conventional to a nuclear war. Public safety and military forces would be diverted from mobilization to accomplish crisis relocation. The majority of the PAs would try to thwart the urban refugee masses from reaching the rural relocation sites and a war of denial would be waged against them.

FEMA evacuation plans call for the relocation of urbanites primarily by privately-owned vehicles. PAs would sabotage roadways utilizing destroyed vehicles to deny passage. Traffic display signs would be uprooted or turned around in order to confuse and hamper travel. Mass transport vehicles would be ambushed or destroyed, and designated assembly points along the evacuation routes would be denied because of continual skirmishes around them to intimidate the refugees. PA warriors and rural citizens would link-up as the local citizens near the relocation sites realized the threat to their property. This would give the paramilitary organizations the extra manpower and weapons needed to sustain and expand their operations.

FEMA planners also depend on the existence of predesignated gasoline service stations along each evacuation route to service and refuel refugee vehicles. These stations would be torched by the private armies.

The fleeing population would be unable to find housing at the host sites because all available space or shelter would have been destroyed or denied, according to PA plans. National Guard units would be of little assistance because they would be activated or tied up in continual skirmishes

with the local population. Local fire fighters would be fighting the dozens of brush and timber fires set by PA arsonists. Local law enforcement agencies will be swamped by the incoming refugee masses and, PA planners hope, many of the rural police and sheriff's department personnel would be in sympathy with, or even part of the private armies.

When the breakdown of order and services in each crisis relocation area becomes apparent, then regular army units would have to be diverted from their primary mission in order to restore order. Paramilitary units would ambush army convoys and attack military units in hit-and-run raids. Equipment, communications, and vehicles would be sabotaged and weapons stolen. Their efforts might be supported by Soviet Special Operations forces (Spetsnaz) conducting stay-behind and deep-cover activities without the knowledge of the PA warriors.

Crisis relocation would be difficult under the best of conditions. In a worst-case scenario with PA bands on the rampage, it would be an utter disaster.

What the *Mini-Manual of the Urban Guerrilla* is to the Marxist urban terrorist, the guerrilla warfare manual *Get Thee Up Into the High Mountains* is to the rural PAs. Written for the Rocky Mountain-based Soldiers of the Cross in the late 1960s, this manual is considered a form of "scripture" by many of the religiously oriented groups. In paraphrasing Isaiah 26:20 in the Old Testament, the author warns:

"Get thee into the mountains or into your shelter. Make it dust-proof against radioactive fallout. Equip it with the necessary supplies that will be needed to provide for your family during the coming holocaust."

PA prophets predict a takeover of America, if not by communists, then by a combination of rich Jews, racial minori-

ties, and other assorted "anti-Christ" forces by the 1990s. Many of the new PAs belong to the radical "Identity Movement" which believes that Christ was an Aryan, the lost tribes of Israel were Anglo-Saxon, that the United States is the real Promised Land, and that Jews and non-whites should be destroyed or exiled as the "children of Satan." They draw their inspiration from *The Turner Diaries*, written by the American neo-Nazi William Pierce. The Diaries are a "how to" manual of guerrilla warfare and terrorism.

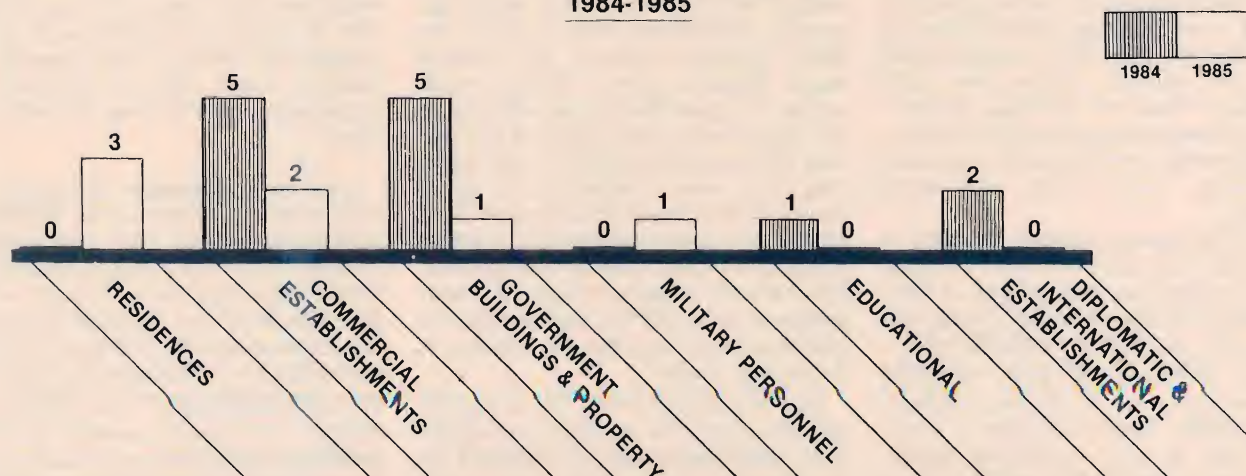
Aryan Brotherhood—The Aryan revolutionary terror campaign started in 1983. Operating under a variety of cell names including The Order, The Silent Brotherhood, and the White American Bastion, Aryan terrorists have conducted at least three armored car robberies, and a bank stickup that netted more than \$4 million and have initiated large-scale counterfeiting operations. It has targeted a staggering number of public officials for assassination, including the President himself. No vestige of the current U.S. government is considered legitimate or is to be spared in the radical restructuring of our country after the Aryan revolution.

The Aryan cells spun off from the religious organization known as the Aryan Nations. Led by the Reverend Richard Butler of the Church of Jesus Christ Christian, the Hayden Lake, Idaho-based church is affiliated with the Christian Identity Movement, a grouping of churches whose theology is laced with anti-semitism, white supremacy, and neo-Nazism. Just as Adolph Hitler shares the wall with Christ as a latter-day Messiah, so *Mein Kampf* can be found along with the Bible as "scripture."

There are firm links between the Aryan Nations and the other PAs. Texas Klan Grand Dragon Louis Beam has been active in Butler's organization and has trained

Terrorist Incidents by Targets

1984-1985



Private Armies

Aryan members in the KKKs Texas Emergency Reserve. There are also links with the German-based militant group known as Teutonic Unity. The links between the Identity Movement and right-wing terrorist groups in Europe are a growing and dangerous phenomenon.

The Christian Patriot's Defense League of Flora, Illinois, is the principle unit of separate but co-operating organizations which are under the leadership of aging millionaire, John R. Harrell. The Christian Conservative Churches of America, the Citizen's Emergency Defense System and the Paul Revere Group are the support organizations for the CPDL. Founded in 1977, the CPDL is an extreme right-wing organization with a paramilitary component, and a conspiratorial view of history which maintains that the total collapse of America, especially in the urban areas, is imminent and irreversible.

To survive this collapse, the CPDL has organized "Christian Defense Posts" as "gathering and rallying" points for members in their own areas when the crisis comes. The defense posts are part of a larger plan to establish a "Mid-America Survival Zone" which is a huge trapezoidal shaped region stretching over all or parts of 20 states. A 232-acre permanent base in Missouri's Ozarks was established as its headquarters. When the government collapses, Harrell announced, these retreats will be safe havens for white, Christian patriots and protected by a "Christian" army composed of thousands of Vietnam veterans.

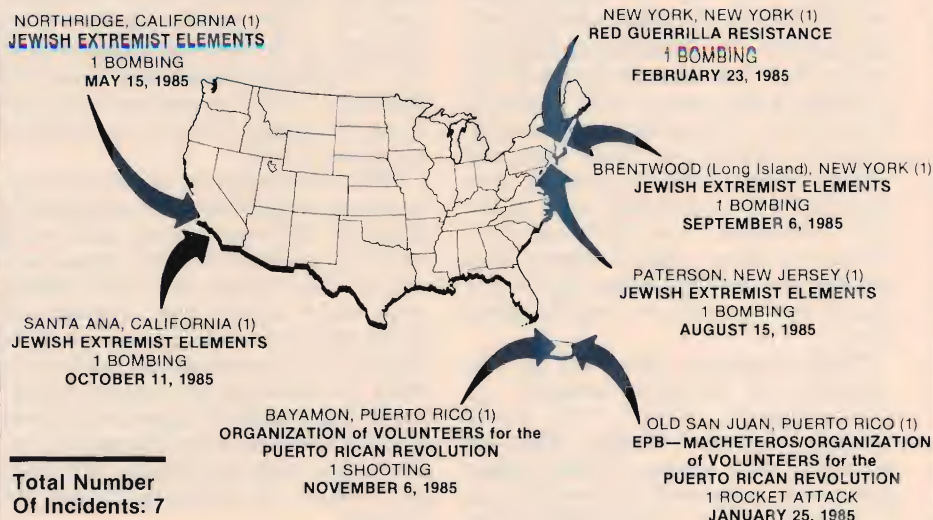
The 224-acre community of Zarephath-Horeb, named for a biblical purging place, is likened to Noah's Ark; "Built for God's people during the coming tribulations on the earth."

The paramilitary, The Covenant, The Sword, and The Arm of The Lord, (CSA) was founded in the wilderness near the Missouri border. The CSA, like other identity groups, are awaiting the nuclear and/or economic holocaust by stockpiling arms and training for terrorist-guerrilla war in a mock village called Silhouette City. The CSA also offers to members and other PA warriors courses from their "Endtime Overcome Training School," which stresses urban and guerrilla warfare, marksmanship, military tactics, weapons proficiency, martial arts, and home defense.

The CSA gained national notoriety in 1984 when one of its members shot and killed an Arkansas state trooper. A four-day siege of Zarephath-Horeb ensued, and state, FBI, and BATF members found a massive array of weapons including machine guns, rockets, silencers, anti-aircraft missiles, land mines and a home-made tank as well as published contingency plans to defend their retreat, prevent crisis relocation in their area through ter-

Terrorist Incidents in the United States

1985



rorist acts, and hasten the collapse of the government.

Posse Comitatus—"Instead of shooting yourselves when you lose your farms to the Jew-controlled banks or government Farm Loan Administration, take your shotgun, go downtown, and shoot your local banker or government official."

So the debt-ridden farmers of the Midwest were advised in a propaganda flyer distributed by the Posse Comitatus, another right-wing paramilitary organization with a history of militancy and terrorism against government agencies.

The Posse Comitatus claims to be the "cutting edge" of a growing national force of patriots engaged in guerrilla warfare, sabotage, and terrorist training essential to cope with the insurrection which they feel is inevitable.

Left-Wing PAs—The private revolutionary armies of the Left have their own terror scenarios for America during a period of crisis relocation. An analysis of their literature indicates that after a national mobilization or other serious upheaval, revolutionary PAs such as the Black Liberation Army or the western-based Hispanic Brown Berets, would engage in a guerrilla-terrorist offensive in the urban areas. The tactics of the left-wing PAs would be similar to the right-wing rural units. Targets in the urban centers would include policemen and their families, law enforcement and fire fighting equipment, banks, social service agencies, power plants, computer complexes, transportation nets, and the assassination of individuals who represent the interests of the "ruling classes."

Like the rural right-wing PAs, the urban left units would flee to the less populated areas. Small towns would be "liberated" so the revolutionary PAs could launch campaigns from these base sites. Country vil-

lages would be "captured" for short periods of time so the population could be propagandized to support the revolution and be organized into village militias. The leftist PAs would also attempt to cut off the urban center's source of food and energy, and would set up ambushes for the police and military.

Various Hispanic groups have discussed the possibility of wresting the seven states that were once part of Mexico away from the U.S. during a crisis. In such an ambitious scenario, the states of Texas, New Mexico, Colorado, Arizona, Utah, Nevada, and California would be "liberated" by Hispanic paramilitary formations and reconstituted as the Republic of Aztlan, which would soon join Mexico. Professor Rudolfo Acuna of California State University has warned in his recent book, *Occupied America—The Chicano Struggle for Liberation*:

"The Mexican-American cry for the land is more than mere rhetoric. Most Chicanos I know harbor deep-seated resentments. They feel, as I do, that the U.S. stole our property and nationality. I would not like to see a civil war develop over the matter, but sentiment is getting stronger and there is the potential for violence. Small cells of Chicanos are organizing to press the issue one way or the other."

Government Response—Grappling with the private army threat is more difficult for government agencies than responding to terrorists such as the Islamic Jihad or the Weathermen. The more dangerous of the PAs hide under the auspices of religious organizations and use this front to protect themselves from investigations. They keep their membership secret, and infiltration is difficult. Intelligence agencies are often prohibited from doing even basic research on most domestic groups since any attempt

(Continued on page 65)

Shortwave:

Tuning The World

Access to a shortwave radio can give the survivalist an important margin of safety . . .

By Michael Pietrantonio



The Sony ICF-2010 is a portable shortwave receiver with digital tuning and programmable memory. It is a medium priced receiver that works on either internal batteries or AC house current (Courtesy of Sony Corp.).

WARS are fought on many different battlefields. Where once nations waged war only on small areas of land or sea, the technology of the 20th century has expanded the arenas in which nations confront one another.

One of these modern arenas of war is the airwaves over which nations seek to sway world opinion. Almost every nation on earth uses shortwave radio programming to convey its views and values to the rest of the world.

So effective is shortwave broadcasting that many nations regard it as a threat to their stability. The Soviet jamming of Voice Of America and Radio Free Europe broadcasts illustrates this point.

This "war of the airwaves," played out daily, gives anyone with a shortwave receiver access to a world of information and views not usually heard on local TV and radio programs. For survivalists, who

by the nature of their beliefs must seek to keep abreast of rapidly changing world events, the shortwave radio opens a whole new world of timely information which can be invaluable in survival planning.

We have all had the experience of listening to a radio station on a car radio and noticing the signal get weaker and weaker as we get farther away from the radio station. Depending on the power of the transmitter this signal fading can occur from between 20 to 100 miles from the radio station. How then do international shortwave radio broadcasts which have to travel thousands of miles overcome this problem?

Shortwave radio signals use amplitude modulated (AM) waves, as do normal everyday AM radio stations. The shortwave signal however operates at a much higher frequency (number of waves per second) than does the standard AM radio signal. Shortwave broadcasts are found on

frequencies ranging from 3 to 30 megahertz (1 MHz = 1 million waves per second), while normal AM broadcasts are found in the 540 to 1600 KiloHertz (1 KHz = 1 thousand waves per second) region.

Normal AM radio stations operate within the "line of sight" from the transmitter to your receiver. The farther away from the transmitter you go the more pronounced become the effects of the curvature of the earth until eventually you lose your line of sight (and signal) between the transmitter and your receiver.

Shortwave radio transmitters, because of the distances involved can not operate on a line of sight basis. Instead shortwave transmitters use the electrically charged portion of the upper atmosphere of the earth, known as the ionosphere, as a reflector for their signals. The ionosphere extends from approximately 60 to 300 miles above the surface of the earth. By

Tuning The World

using this "bounce" phenomenon broadcasters are able to beam their signals to selected areas many thousands of miles away.

Bouncing radio signals from the ionosphere subjects the signals to interference created within the ionosphere itself. Sunspots, solar radiation and other interference-generating phenomena as well as the time of day, season of the year, and weather conditions all combine to influence the quality of the received shortwave signal.

Shortwave Receivers, Antennas—Most of us have the image of the shortwave radio being bulky, hard to tune, and rather expensive. The new generation of lightweight, microprocessor controlled, digitally tuned shortwave receivers now available have little in common with the receivers of the past.

Current models of brand-name shortwave receivers, from paperback book sized portables to ultra-sophisticated desktop units are available for prices ranging from under \$100 to more than \$1,000. Most models including the lower priced units also receive standard AM-FM broadcasts.

Over the years one of the biggest drawbacks to shortwave listening has been the difficulty of accurately tuning a given station's broadcast frequency. Unlike conventional AM-FM radio, shortwave stations are generally located very close together on the tuning dial. This means that signals from different stations frequently overlap and interfere with each other. To compensate for this the shortwave radio tuner must be able to accurately tune to a given frequency and reject unwanted but close by signals. Older shortwave receivers generally used a dual tuning system to overcome this problem. The user would first adjust the main tuner



Sony's ICR-4800 is a low priced, manually tuned, portable shortwave receiver. It's about the size of a paperback book and runs on internal batteries (Courtesy of Sony Corp.).

to the general vicinity of the frequency being sought and would then use a fine tuner known as a bandspread control to zero in on the desired station.

Newer shortwave receivers including many of the lower priced portable units now use digital readouts for tuning. Turn the tuning dial, or on some models punch in the desired frequency on the keyboard, and the receiver display will show exactly what frequency you are tuned to. Some of the higher priced units also offer a scanning function by which the radio continuously searches out frequencies carrying broadcasts, a very useful feature on a shortwave set.

Another consideration for those interested in purchasing a shortwave radio, particularly those in the survivalist move-

ment, is the ability of the radio to operate on batteries. All of the portable models operate on internal batteries and many of them have adapters to enable them to operate from normal house current. Not all of the larger desktop receivers can be run on batteries so it is advisable to check with the salesperson regarding this feature if battery operation is important to you.

With the coming of the microchip, shortwave receiver sensitivity (the ability of a receiver to pick up weak signals) has taken a dramatic leap forward. The smaller portable receivers now have sensitivity as good as the desktop models.

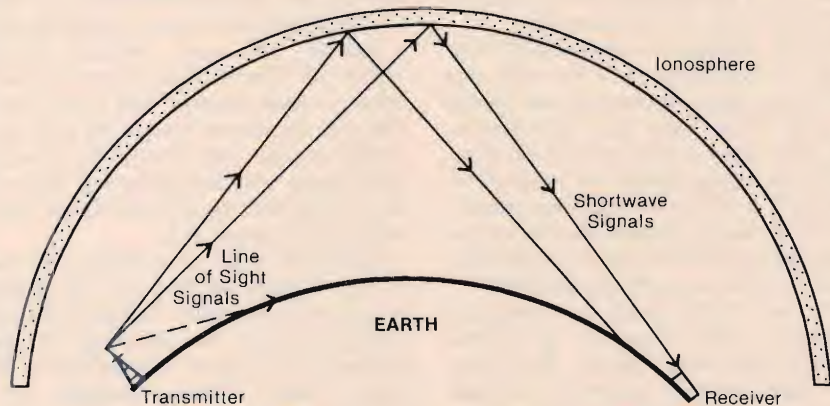
All of the available portable shortwave receivers come with built-in collapsible antennas. Many of the portables and all of the desktop models come with provisions for the connection of an external antenna.

The subject of the best antenna for a given set of conditions is one that dedicated shortwave listeners can spend endless hours debating. For survival needs and basic news gathering tasks however, the best antenna will be the simplest both in construction and materials.

This author has found a simple longwire antenna to be a very effective signal gatherer. This antenna is easy to erect and very inexpensive yet does a good job in pulling in weak signals. It can be used for either a desktop radio at home or in the retreat, or it can be set up as a field-expedient antenna for use with a portable receiver.

The longwire antenna is a single length of from 25 to 100 feet of number 16 through number 10 gauge wire mounted between two insulators and run parallel to the ground as high up as is practical. A lead-in wire of the same gauge is run to the

How Shortwave Signals Reach You



Shortwave signals can travel thousands of miles by bouncing off the ionosphere. Conventional AM radio signals are limited to "line of sight" distances.



An example of a digitally controlled, programmable shortwave receiver is this Yaesu FRG-8800 receiver. With the advent of microprocessors, tuning shortwave stations is no longer a matter of guesswork. This unit allows you to hook up a personal computer for many added functions (Courtesy of Yaesu Electronics, Inc.).

Shortwave Radios

Manufacturer and Model	Price	Desktop or Portable	Features
SONY ICR 4800	\$ 79.95	Portable	Shortwave, AM-FM, battery or AC operation
Uniden CR-2021	\$ 130.00	Portable	Shortwave, AM-FM, digital tuning, battery or AC
SONY ICF-2010	\$ 250.00	Portable	Shortwave, AM-FM, digital tuning, battery or AC
Kenwood R-1000	\$ 450.00	Desktop	Shortwave, AM only, digital tuning, clock timer, AC only
Yaesu FRG-8800	\$ 600.00	Desktop	Shortwave, AM-FM, digital tuning, scanning mode, computer compatible, AC only
Drake R-7	\$1,500.00	Desktop	Shortwave, AM only, digital tuning and memory, programmable, AC only.

antenna terminal of a grounded receiver. For safety purposes the lead-in wire should be connected to a lightning arrester which will help protect both the receiver and the user in the event of a lightning strike on the antenna.

A variation of the longwire antenna that can be of particular value to survivalists allows the shortwave receiver to be connected to an automobile antenna system. In this expedient version of the longwire antenna, a 25- to 50-foot length of antenna wire is attached to an insulator which is secured to a tree, fencepost, etc. The other end of the antenna wire is attached to an alligator clip which is then clipped onto the automobile radio antenna. The automobile should be grounded directly to earth. Inside the car the antenna wire is removed from the car radio and plugged into the antenna jack of the shortwave receiver. This temporary antenna system allows the

survivalist access to international broadcasts while away from his base of operations.

There are many other types of antennas which can be used for shortwave reception. See your local radio electronics dealer for detailed information and ideas for many varieties of antenna systems.

Listening—Tuning through the bands of a shortwave radio is very much like having a private network of news reporters working for you. For fast breaking news stories such as the recent Soviet nuclear accident, the ability to tune in the English language broadcasts of countries directly involved and affected, yields information almost as it is happening.

During the Soviet nuclear accident this author was able to follow developments in the countries immediately surrounding the Soviet Union. At the same time as Radio

Moscow was issuing one paragraph assurances of safety, Swedish, Norwegian, and German radio stations were giving radiation intensities, direction of travel of the radioactive plume and survival and safety instructions.

Longer term news events are also ideally suited to being followed by shortwave. During the Falklands War it was both instructive and intriguing to listen to the differing descriptions of the same event over the BBC and Argentine radio.

Radio Moscow can provide for some very interesting listening. Their signal is among the strongest on the shortwave bands and they broadcast with their English language World Service on almost a 24-hour per day basis.

Once tuned in to Radio Moscow the new listener will learn that the cold war is not a thing of the past. Much time is spent elaborating the faults of the U.S. while extolling the virtues of Mother Russia and her satellites. The nature and vehemence of the broadcasts on Radio Moscow can also serve as a good indicator of the level of current tensions between the superpowers.

For those in the survivalist community news and information will probably be the main reason to consider entering the world of shortwave listening. There are, however, many other types of programs, geared to a wide variety of listeners, that are available on the shortwave bands.

For example, you can listen to the Berlin Philharmonic play a Beethoven symphony on Radio Deutsche Welle (The Voice Of Germany), or take Spanish lessons with broadcasts from Spanish Foreign Radio. With a turn of the dial you can tune to Radio Israel for a tour of Jerusalem or listen to one of the many radio plays put on by the BBC (British Broadcasting Company). Other stations available to the listener range from the U.S. Voice Of America and Armed Forces Radio to Radio Albania, Nicaraguan Liberation Radio, the voice of the Peoples Republic of China, and on and on. There are also a growing number of religious broadcasts on the shortwave bands, some of them such as the Voice Of The Andes (Quito, Ecuador) broadcasting Christian programming 24 hours per day.

Shortwave radio gives the survivalist the ability to accumulate important information for either immediate or later use. It allows you to follow breaking news stories often on an "as it's happening" basis. For those who believe in preparedness timely information is essential. Shortwave broadcasts can provide such information, often many hours before it reaches the U.S. media.

Given the rapidity with which events in one country can effect other countries and individuals, access to a shortwave radio can give the survivalist an important margin of safety. ●

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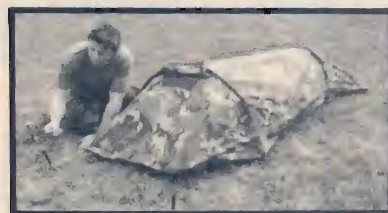
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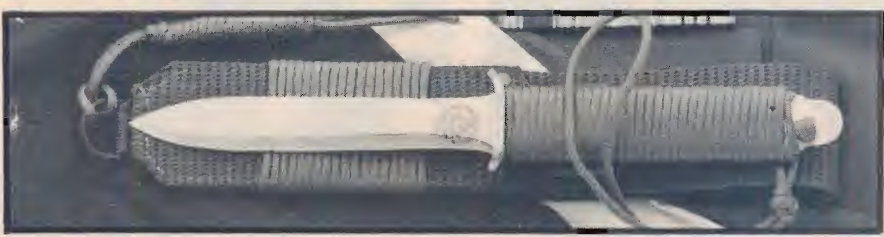
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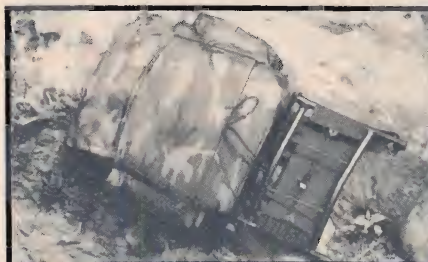
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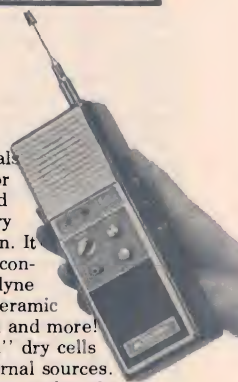
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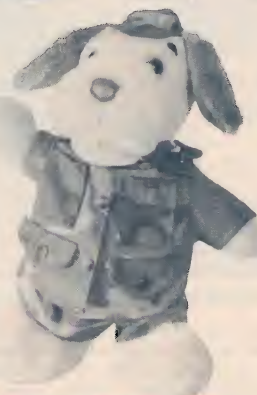
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The Home As A Haven II

Drawings for two more blast upgradable hazard-resistant earth-sheltered residences . . .

By Conrad V. Chester, Dale Torri-Safdie, George Cristy, Carl Taylor, Gregory P. Zimmerman

(This is the second of two articles—the first ran in last month's issue—on building your shelter as a home. It is reprinted with permission from the Journal of Civil Defense. The authors are with the Energy Division of Oak Ridge National Laboratory—The editors.)

EARTH-SHELTERED residences and schools continue to be built in the central and northern parts of the United States as a means of conserving energy and providing protection against violent storms, especially tornados. Some people seem to be willing to spend the extra 30-40 percent over frame construction in order to get the benefits mentioned above, the acoustical privacy, and the environmental

and aesthetic advantages of an earth-sheltered home.

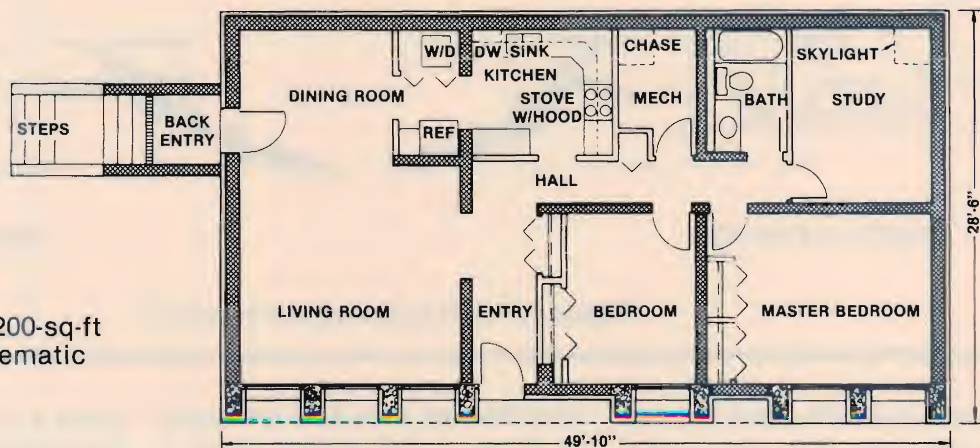
A typical earth-sheltered residence, surrounded on three sides with earth and with two or three feet of earth on the roof, has obvious inherent protection over that of a frame dwelling against fallout. With minor changes in design such as the use and

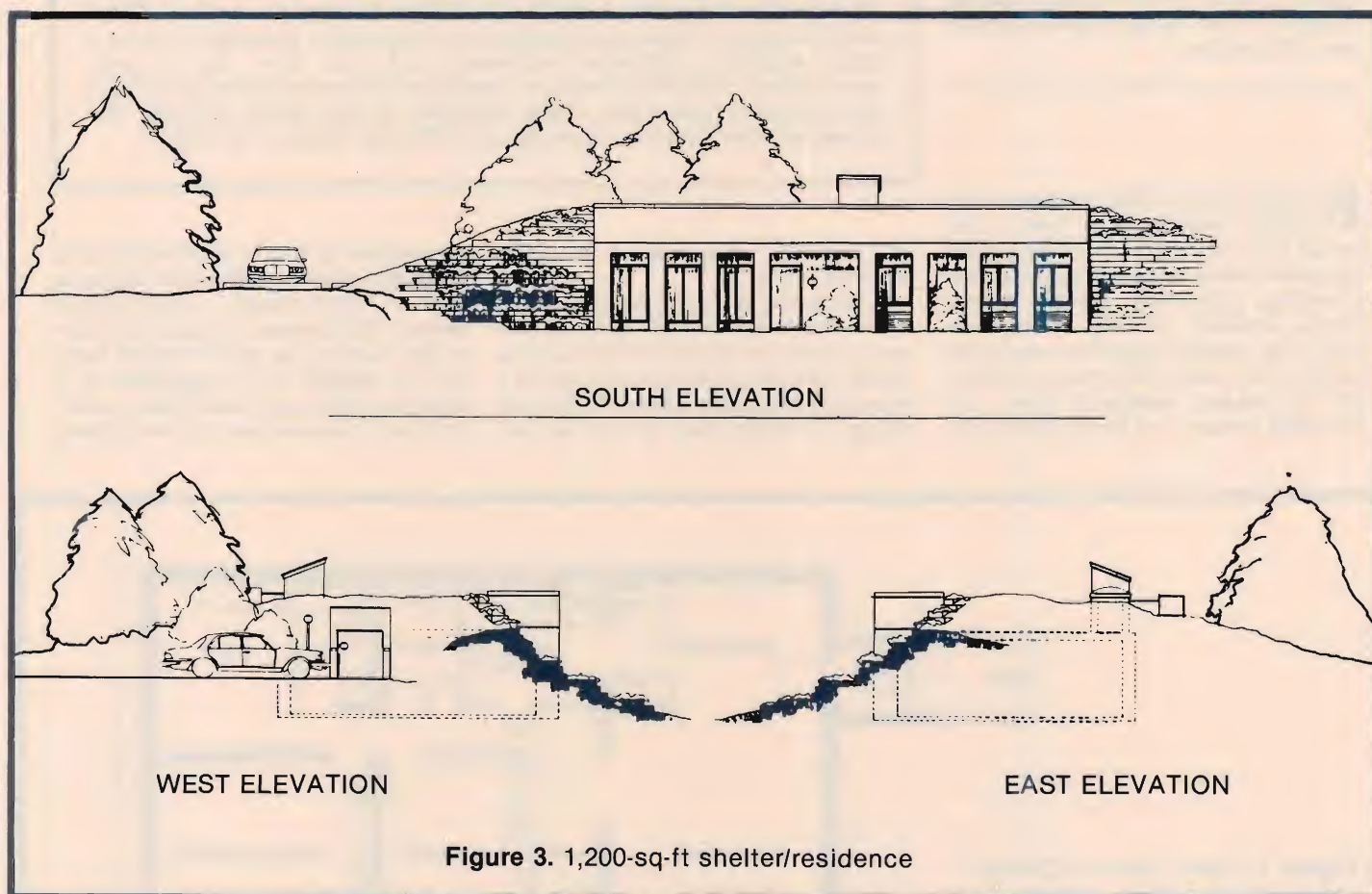
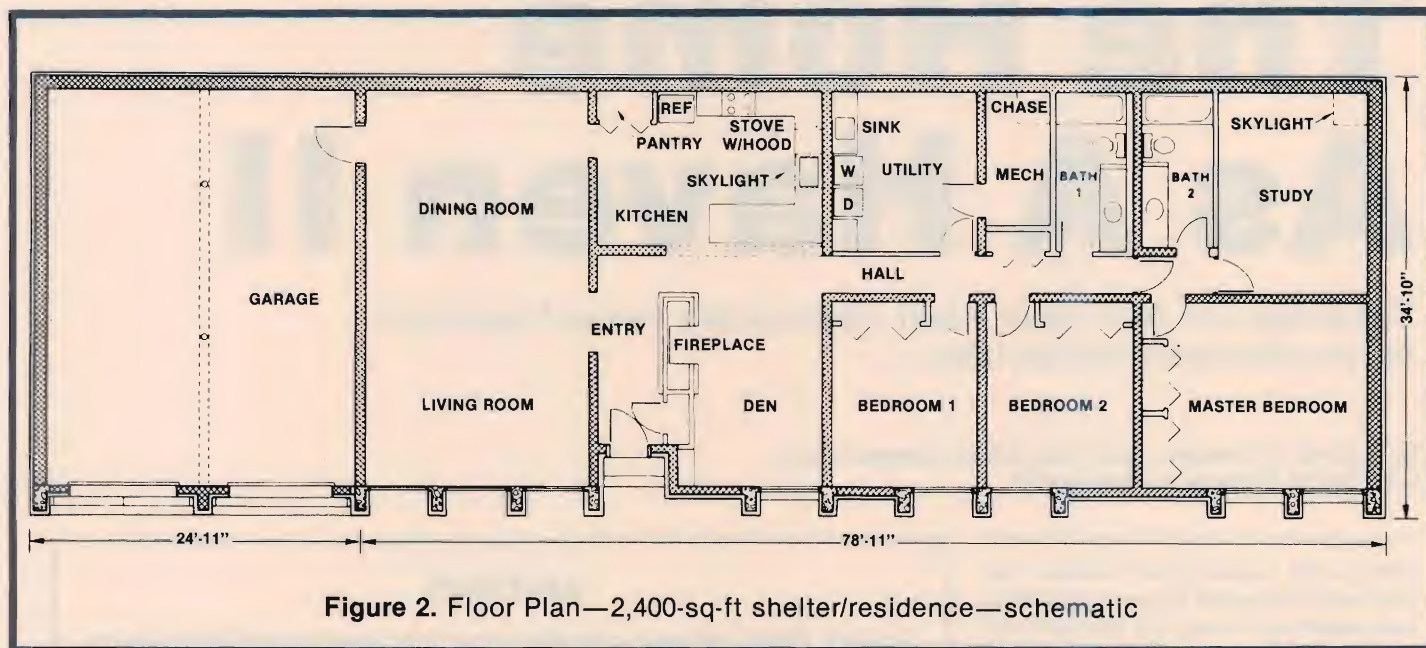
arrangement of interior solid walls, fallout protection can be considerably enhanced over a "conventional earth-sheltered design." Furthermore, by careful attention to the structure, an earth-sheltered home can be designed to be upgradable in a crisis to provide much more fallout protection and a modest degree (one atmosphere)

ABSTRACT

The Oak Ridge National Laboratory has produced two modifications to an original design of a 1,400-sq-ft passively solar-heated, elevational earth-sheltered residence which can be blast-hardened in a crisis. These modifications include two new sets of construction drawings: one for a more austere, 1,200-sq-ft residence and the other for a more commodious, 2,400-sq-ft version. Detailed construction drawings of both new designs have been made available to the public through The American Civil Defense Association, POB 1057, Starke, FL 32091.

Figure 1. Floor Plan—1,200-sq-ft shelter/residence—schematic



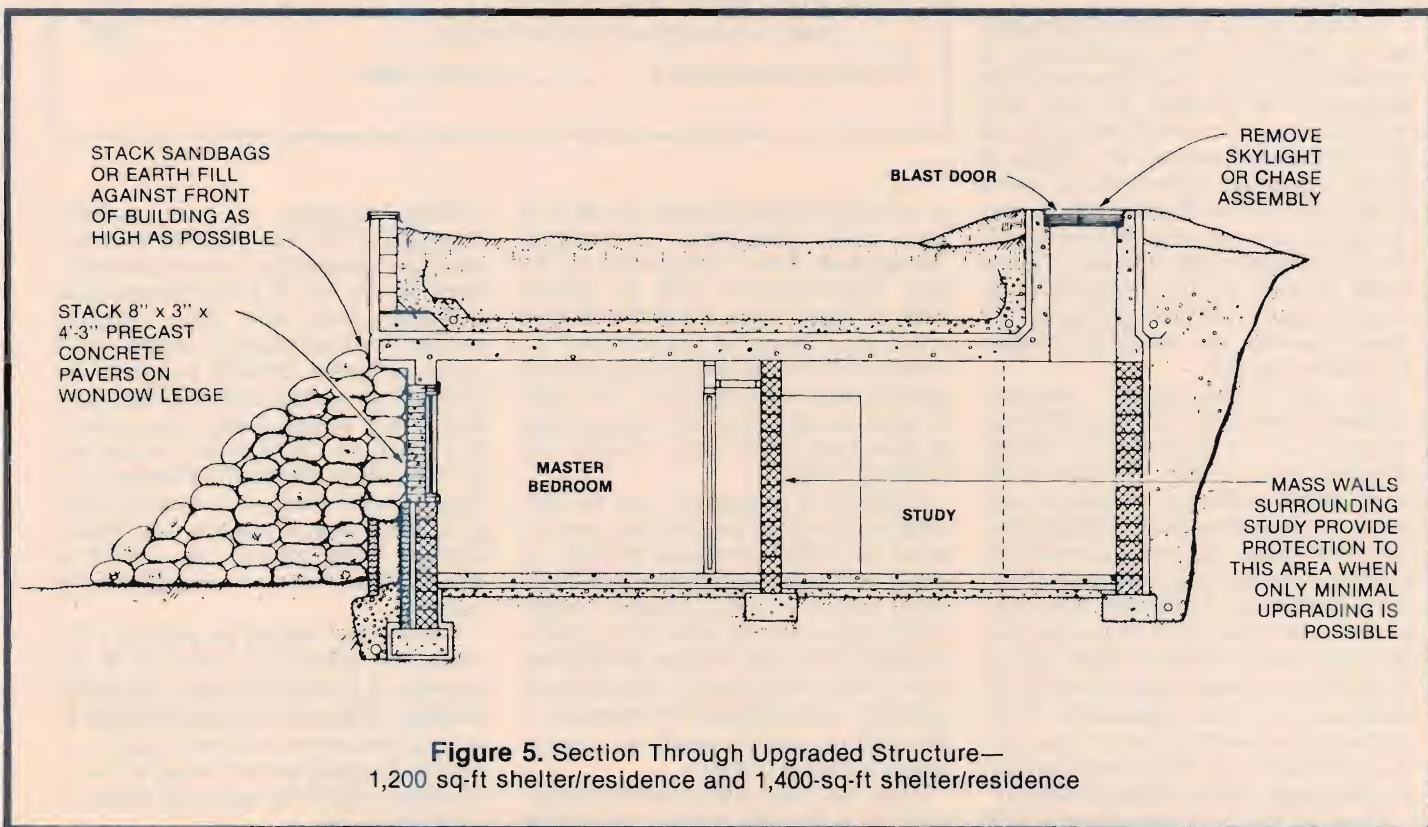
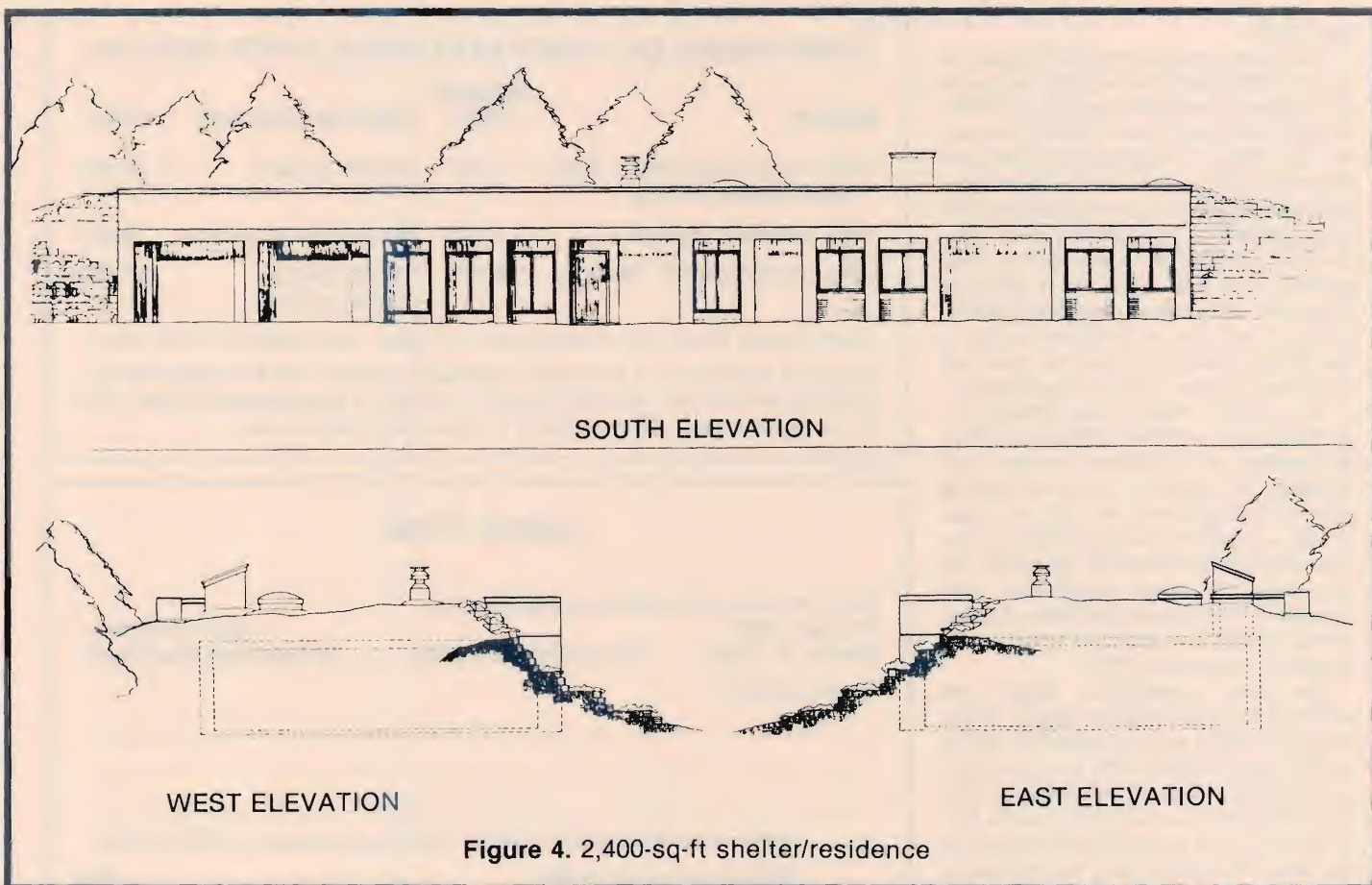


of blast protection. This is done by closing off the south-facing windows in a so-called "elevational" design.

All of these principles were embodied in a design of a 1,400-ft earth-sheltered resi-

dence described in the April 1984 issue of the *Journal of Civil Defense* (Chester, et al.; 1984). Detailed construction drawings of that original floor plan were made available to The American Civil Defense Asso-

ciation in an easily reproducible form so they could be disseminated to the general public. Construction plans are available to anyone upon payment of reproduction costs and a small handling fee to the



Association.

It became obvious from the inquiries of private individuals that a single floor plan is not going to satisfy all potential builders of earth-sheltered houses. ORNL has carried the original concept a bit further and developed floor plans and detailed construction drawings of two variations of the plan reported in April 1984: a more commodious 2,400-sq-ft version and a more austere, and less expensive, 1,200-sq-ft floor plan. The austere floor plan is shown in Fig. 1 and the commodious in Fig. 2. Elevational drawings of the two buildings are shown in Figs. 3 and 4, respectively.

The austere version was obtained by shortening the original building by 10 ft, eliminating one bedroom entirely and shrinking the kitchen, as well as moving some of the appliances into the area previously occupied by the large dining room. The carport was eliminated. However, the provisions for blast upgrading were retained. It is estimated that these changes should reduce the cost approximately 20 percent, to about \$78,000.

The more commodious design was achieved by increasing the depth of the original building approximately 6 ft and its length approximately 18 ft. A two-car garage was also added. The building retains two baths but has an added den and a utility room, as well as significant increases in the sizes of the study and the bedrooms. The net living area is approximately 2,400-sq-ft.

The same general method of upgrading, as was employed in the original design, is retained (see Fig. 5). Patio pavers are to be stacked in the windows, and the door entrances are to be bermed with earth. In the commodious version, the method of sealing the garage against blast is to use longer patio pavers tipped vertically into the garage door openings to bear against the strengthened frame. The longer pavers would be held in place temporarily by wooden wedges until earth is piled against them to provide the additional shielding and blast protection.

The cost of the original 1,400-sq-ft building, corrected to a January 1985 construction date, is approximately \$96,800 (Shapira, et al.; 1983). The cost of the more austere 1,200-sq-ft building is estimated to be approximately \$78,000 (January 1985 price). The more commodious 2,400-sq-ft version is estimated to cost in the neighborhood of \$160,000. This latter price is more than would be predicted by the simple ratio of the net floor area of living space in each design. Part of the additional cost is the replacement of the relatively economical carport in the original 1,400-sq-ft plan with a belowground, two-car garage in the 2,400-sq-ft version.

These designs cost approximately \$70/

COMPARISON OF THREE EARTH-SHELTERED DESIGNS

DESIGN	SQUARE FEET	CARPORT/GARAGE	COST*
1983 Design (featured in April 1984 Journal of CD)	1,400	Double carport	\$ 96,800
1985 "austere" design	1,200	No carport or garage	78,000
1985 "commodious" design	2,400	double garage (below-ground)	160,000

*Contributed planning, supervision and labor can sharply reduce cost.

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sq ft which is approximately \$17.40/sq ft more than comparable, conventional, aboveground frame construction in the Oak Ridge-Knoxville area in January 1985. If people were crowded into these structures at the rate of 1 person per 10 sq. ft the cost for 15 psi blast shelter would be approximately \$174.00/space. This price is much cheaper than that of any single purpose blast shelter design (Chester and Holladay; 1983).

It should be pointed out that the U.S. residential housing industry can produce about two million residences per year. In theory, if this production were built in the right areas, it could produce enough shelter spaces for the entire U.S. population within one year. The cost of switching from frame construction to the crisis upgradable earth-sheltered construction in this unlikely scenario would be approximately 40 billion dollars.

These two new sets of eight drawings each, as well as the previous set of eight

working drawings, all now available through TACDA, were designed by experienced professionals but have not been subjected to the test of actual construction. Although they have been carefully reviewed by knowledgeable people, small errors are almost certainly present in the drawings. In making these drawings available to the general public, the authors, The American Civil Defense Association, the Oak Ridge National Laboratory, the Department of Energy, the Federal Emergency Management Agency, and Martin Marietta Energy Systems, Inc. assume no liability for any errors or oversights in the drawings.

It is the fond hope of the authors of this article that people will make use of the drawings to build multi-hazard protective dwellings. We would be most interested in hearing from anyone who does make use of them with special interest in any errors or oversights which turn up in the course of construction. ●

Austrian Super Pistol:



Top test accuracy was a 1 3/8-inch five-shot group from 25 meters with Lapua 123 full metal jacketed ammunition.

Glock 17

The now famous 'plastic gun' outperforms many contemporaries . . .

By Robert T. Shimek

BEHOLD the Austrian ordnance version of "Rocky I" . . . but with a twist, designed to make the story even more inspiring. In the black-crackle finish, we have the favorite—Steyr GB. It's big; it's handsome. It works perfectly. It is the ultimate creation of the most competent design team Austria's biggest arms maker can field. Years of work have gone into it. It is reviewed favorably everywhere. Its maker is confident—understandably so—that when the upcoming Austrian service pistol trials are completed, he will remain THE supplier of handguns to his country's military . . . just as he has been for a long, long time. Truly then, GB is the "Apollo Creed" of our story—the odds-on favorite to trounce any opposition, however sophisticated.

Enter "Rocky Balboa"—the Glock 17. Sophisticated? This contender would seem—to the uninitiated—to be anything but. In the first place, it's made by a "nobody," a tiny, tiny Austrian arms maker who has never built a pistol before.

In the second place, its primary construction material, plastic, seems questionable. For while it's true that H&K's VP70 has sported a plastic frame for more than a decade, it's also true that VP70 is a huge pistol that gains at least some of its structural integrity through sheer beefiness. The Glock, by comparison, looks petite and delicate: "But what about 5,000 rounds from now?" is the question that comes inevitably to mind.

A third issue: Glock appears . . . well . . . "crude," engineering-wise. Trigger action



The Glock field strips into four major components, excluding magazine.



ABOVE—The plastic magazine houses 17 rounds and has a cartridge counter feature.



BELOW—Trigger-lever safety helps prevent accidental pulling of the trigger during normal handling.



Slide rails are reinforced with steel inserts.

is reminiscent of the ancient Roth-Steyr cavalry pistols; there is no thumb safety, no decocker, no squeeze-cocker—the trigger pull is your safety; there are but 33 parts in the whole gun, four-piece magazine included; the pistol's 21 ounces feel toy like in the hand. How must this beast kick with hot NATO loads, one wonders. So . . . no question about it, this is "Rocky," doomed inexorably to kiss the canvas in the opening rounds.

The bell rings, our contenders do battle. But here enters the "twist" we spoke of earlier. For "Rocky," the Glock, does not merely go the distance, does not rise to glory simply by making the opposition work hard for his success. "Rocky" wins—the first time! And so it is that, in studying the Glock 17, we are studying not only a

rare example of David-over-Goliath victory (in a world that generally rewards Goliath) but also the brand-new official service pistol of the Austrian armed forces. And yes, we are studying as well the cause of lots of discouraged head-shaking in the executive offices of the renowned Steyr-Werke.

So how did this dark horse pistol, the Glock, come to be? It's fair to state, I think, that it came about much as our famous Henry rifle did, through the design genius of one party and the daring entrepreneurship of another. The designer(s), alas, we'll never know by name; in fact, it's been said that the gun was a product of a small team of engineers. But as for the businessman who brought the design team together, this was one Gaston Glock,

whose small, 38-employee firm, based at Deutsch-Wagram, Austria, was already well known as a supplier of arms-related accessories to the Austrian services. It was Herr Glock's intention from the outset to provide Steyr-Werke with a real run for the money in the aforementioned 1982 service pistol trials; there was certainly no other competition for the age-old firm, since only Austrian companies were encouraged to enter designs. At first, however, the unconventional Glock just plain shocked the contest's selection committee, so much so that a special test, a 10,000-round destruction derby, with but 20-stoppages permitted, was created to challenge the plastic gun's durability; no one put the GB through similar agony. But the redoubtable Glock survived this trial handily, with but a single stoppage! And thus, the gun was permitted to go on to the main event, where it walloped the Steyr soundly. Alas, this writer is uncertain in just which events the Glock emerged victorious but from a glance at the selection criteria, it isn't hard to tell.

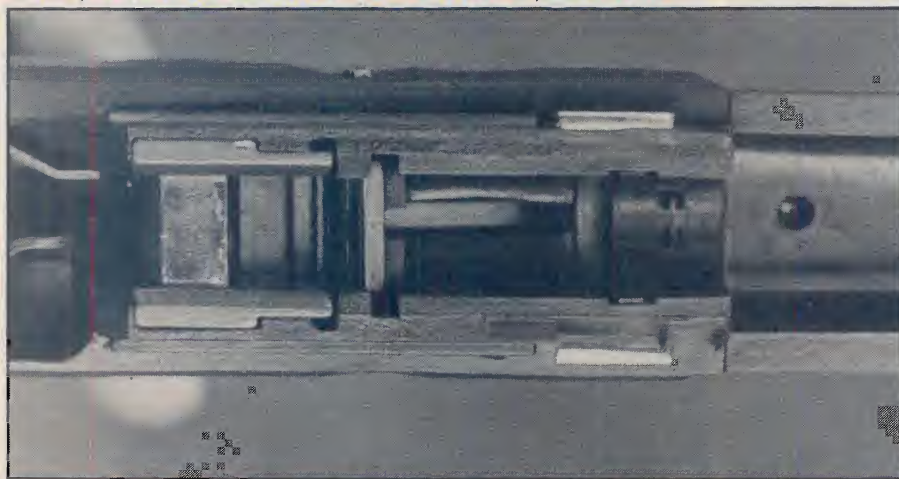
To begin with, first shot hit potential was doubtless a Glock strong point: GB's double action auto lockwork, with its propensity to stack at the breakpoint, couldn't possibly compete with the Glock's single action-style pull. Weight and dimensions certainly represented Glock victories too: GB is fully one-inch longer than the Glock and weighs about the same empty as the Glock does with all 17 of its 9mm rounds in place.

Maintenance tools needed for total disassembly was a Glock forte also: the M17 uses none at all, while GB requires a screwdriver to remove the grips.

And finally, the Glock's price was fully 25 percent lower than GB's. Added to all this was the reality that the Glock worked at least as well as the Steyr. And so down

Glock 17

Glock's plastic frame is reinforced with ordnance steel at points of stress.



ABOVE—Uniquely shaped firing pin recess houses reinforced-style pin that creates bar-shaped indentations in primers.

went the GB, condemned to fend for itself in a dwindling commercial market, while Herr Glock received the complete order for 25,000 service pistols, plus spares. Said order was filled as of 1985. And now come Glocks to the U.S., this courtesy of the federal Bureau of Alcohol, Tobacco and Firearms which, ignoring the media hysteria over "the gun airport sensors can't detect," authorized importation of the pistol, provided a metal serial number plate was incorporated into the frame and adjustable sights were added.

All of which brings us to our test piece, provided so generously by proprietor David Manley of Brookville Gun Shop, 58 Barnett St., Brookville, PA 15825. (David's is one of the larger handgun selections in western Pennsylvania . . . and yes, that is indeed an unabashed plug for a very helpful friend.)

Our trial Glock comes in a plastic box that, save for its black color, looks for all the world like a tub of margarine. Included with the pistol are a spare mag, mag loading tool, bore brush, cleaning rod, warranty card, and owner's manual. Retail price of the package is a surprisingly reasonable \$399.95.

Avant-Garde—Examination of the test piece reveals much that is avant-garde, but also much that is reassuringly conventional. Let's begin by discussing the conventionalities. Action is locked breech and employs a falling barrel in the manner of the SIG 226; recoil spring is of under-barrel, non-captive design, also in the manner of the SIG. Ignition is by means of striker, a system recently re-popularized by H&K. Slide construction involves the traditional one-piece forging: for some things, plastics won't do. Mag release is effected by a conventionally placed, if oddly shaped, thumb button. Slide hold-open is of the usual, thumb-operated



Mechanical accuracy of the trial Glock was simply first rate. These targets represent results with six different types of factory ammunition.

design. Sights are conventional semi-adjustable. You drift for windage, screw-adjust for elevation. And the sights are of the fine, big, blocky design one commonly sees on today's wonder-nines. Low light sighting is provided for courtesy of the typical white dot fore, white outline notch aft. Finish is characteristic 1980s super-pistol, being non-reflective black phosphate on all external metal, non-reflective black fine-grain on visible plastic. All of which is indeed pretty conventional stuff.

But as for the innovations . . . Most noteworthy here is the totally passive "Safe Action" safety system which, rather frighteningly for the traditionalist, provides neither a thumb lever, as on single action autopistols, nor a long, heavy, first-shot double action pull, as on double action autos, nor even a manually applied de-cocked or half-cocked condition, as on

some old safetyless self loaders. What you get instead is a gun that has but two modes of readiness: chamber unloaded, and thus "safe," or chamber loaded, and thus ready to fire at the touch of what is really a single-action-style trigger. There is no middle ground.

So what provides for the shooter's safety? Basically, the following. First, the trigger lockwork is such that it must complete cocking of the striker before actual tripping of the sear occurs. In short, a Glock in the holster with chamber loaded isn't really at full cock; it's at . . . well, "three-quarters cock," and needs action by the trigger to complete the cocking cycle before ignition can occur.

Safety number two is a firing pin lock: drop the pistol with chamber loaded and it shouldn't go off unless some freak structure on the ground pulls the trigger.

A third safety device is provided in the form of a "trigger lever," designed to help prevent inadvertent pulling of the trigger during normal handling.

And a final safety consists of a trigger bar block that's inactivated by trigger action. So passive a system does, let me concede, take a while to get used to; it gives one the creeps at first. But mechanically, it's hard to argue against. And talk about fast! I might add that trigger pull is no old billygoat, as was the case with the 1907 Roth-Steyr cavalry pistol that pioneered the "trigger-completed-cocking" idea: the take-up, which completes the cocking, is virtually weightless, and the sear-tripping letoff that follows is absolutely without creep and occurs at six-pounds' pressure. There are lots of conventional SA autos about that are cursed with triggers not half so good.

Other innovations that reinforce the Glock's avant-garde image are four in number. First is the imbedding of steel strengtheners at various stress points in the plastic frame and mag: both locking block recess and slide rails are, reassuringly, of ordnance steel; magazine feed lips are reinforced with steel inserts.

A second innovation involves the barrel: rifling is a curious cross between conventional, and polygonal, lands being pronounced but also gently rounded cross sectionally. This allegedly extends barrel life.

Firing pin configuration constitutes innovation number three: the nose is reinforced in such a way that bar-shaped primer indentations result.

And the disassembly sequence represents a fourth and final departure from the norm; disassembly is commenced by fingering a PAIR of tiny, spring-loaded catches.

Testing—Field performance of the Glock, as revealed by the test piece, is exemplary. Accuracy is more than a little surprising, five shots in 1 7/8-inches from 25 meters being the WORST groupability manifested by any of six FMJ, JHP, and JSP factory loadings tried in proprietor

Manley's pistol! (1 3/8-inches, printed with Lapua 123 FMJ fodder, was the best accuracy demonstrated.)

Functional reliability is excellent also: the only problem encountered in all of testing was with those Berdan-primed Lapua FMJ rounds, which occasionally required a second firing pin strike to effect ignition. No other ammo gave this problem please note.

Glock recoil is . . . well, not light (no 21-ounce Parabellum is going to be truly gentle) but by no means disturbing either. In side-by-side tests, the piece kicked'n' climbed a bit more than my five-ounces-heavier SIG 226, but a side-by-side comparison was indeed needed to verify this. Other Glock qualities, as far as I could determine, are all benign: empties are deposited close to the shooter's right; that canted grip is super-comfortable and makes for excellent pointability; magazine swaps are fast, thanks to the beveled top of that double column magazine.

Complaints? Apart from a slightly "tight" rear sight notch, it's really hard to come up with any for so neat an item as the Glock. I would theorize however that the pistol is not the one I personally would select for issue to the semi-trained (cops and soldiers possessing only perfunctory, get-'em-qualified' handgun schooling). For the semi-trained commit some dreadful safety violations with their guns. They draw and holster with finger inside trigger guard, cover suspects with finger on cocked trigger, etc., and of errors like these, the M17 is quite unforgiving.

The Glock, then, is an arm for the skilled and relatively cool pistoleer, not for the shaky semi-trained.

So here we leave our "Rocky." Truly, he is much more of a fighting instrument than any of us thought when first he appeared. For recall all the skepticism when Austria's "plastic pistol" was first described in the literature, and when its somewhat clunky lines were first exposed to the public? Well no one who has seen the gun in action is skeptical any more . . . ●

Glock 17 Pistol: Tech Specs

Caliber	9mm Parabellum
Capacity	18 (1 in chamber, 17 in mag.)
Height, inches	5 1/4
Length, inches	7 1/2
Width, inches	1 1/8
Barrel Length, inches	4 1/2
Weight, ounces:	
Empty	24
Loaded	30
Price, Suggested Retail	\$399.95
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By George D. Guillory



ABOVE—Pickups make excellent escape vehicles.

RIGHT—A view of the rear interior of the author's vehicle. Since he has no children the rear seat has been removed for extra carrying capacity. Note the roll bar for safety.



LET'S FACE IT, not everyone has a retreat. Some of us, because of our jobs, lack of money or peculiar professions, cannot move now to our favorite retreat.

This retreat may be a piece of land we have purchased in anticipation of moving, or it may be an area that in a general emergency would be unoccupied. But how will we get there? We must take into consideration such conditions as traffic and bad roads. The answer to this dilemma is an evacuation vehicle.

Before discussing what type of vehicle is best suited as an escape vehicle, let us discuss what type of vehicle is not. It is not a custom terrain vehicle with 10 wheels and armor plating. It is not a custom modified Corvette with a blower on the engine, ala *Road Warrior*.

What a survival vehicle is, is a simple,

practical, easy to repair and maintain vehicle.

The purpose of this article is to show you that the average person can search for, evaluate, purchase, modify and maintain an escape vehicle. It will also retain its original role as a vehicle that can be used for everyday transportation, an important cost saving measure in today's economy.

Logically, the simplest vehicle to maintain is one that was built simple. Among the best vehicles for this job are the 1972-76 Chevrolet Blazers, Ford Broncos and Jeeps. The main reason is that they do not have electronic ignition which may be damaged by nuclear electromagnetic pulse (EMP).

Obviously, newer model vehicles may be the only choices available. Age, damage and rust may make the older vehicles unavailable in your area of the country. If a

newer model is your choice you could order an engine model option package without the electronic ignition or keep an extra "black box" in an EMP-resistant Faraday box.

When selecting a vehicle thought must be made to the availability of an after incident parts supply. Vehicles with long parts ordering times will be almost impossible to repair after an emergency. Most larger companies have corporate engines in almost all vehicles they manufacture so that the alternator or carburetor that you need may come out of someone else's abandoned station wagon.

When selecting your project vehicle you can look to three basic sources: 1) used car lots, 2) friends and family, and 3) newspaper advertisements. Buying from a used car lot has one basic disadvantage. The used car dealer knows how much the vehicle will bring on the open market. Notice, I did not say "how much the vehicle is worth." Used car lots want to maximize their profit, therefore the major consideration of a used car lot owner is appearance. The motor of the vehicle may not necessarily smoke, or have a leaky transfer case, but if it did it would not affect the price much.

Friends and family can be very good sources for a vehicle. The price will be right and usually they will let you know the major problems of the vehicle, up front.

The best way to purchase a vehicle is through the want ads. You can pick and choose which ads to reply to based on your budget. You can go by and look at the vehicle with no obligation. You will find a better selection. And the best part of the deal is that since the seller took the ad and you want to purchase a vehicle, you can usually come to a fair and equitable price. It is easier to haggle price with this seller than with a used car dealer, or a friend.

Points To Remember—There are several points to remember when you visit the seller to see the vehicle. First, go during the day. You need plenty of light to look at the vehicle closely. Believe me, it is very difficult to check a vehicle in the dark, with a flashlight. Second, allow yourself plenty of time to check out the vehicle. Sometimes it is just as important to establish a rapport with the seller, and this can take time. Third, wear old clothes. Crawling around underneath a vehicle can be very hard on good clothes. You will want to also check underneath the hood. Fourth, do not buy the vehicle after you visit it for the first time. Go home, and evaluate the weak and strong points of the vehicle, then decide.

When looking under the vehicle there are several major things to check for: engine, transfer case and transmission leaks; body and motor mount damage; and major rust perforation. Minor rust is not a problem because it can be easily repaired by the average home mechanic. But, major rust can be dangerous and it is

a problem that the average person cannot tackle by himself.

Next, start the vehicle and let it warm up. Are there any leaks? Does the engine smoke? Is it overheating? Better to stay away from these vehicles because all of the above could be signs of major problems. Is the engine squeaky clean? Watch out, this means steam cleaning to possibly wash away any evidence of leaks. After the engine has been warmed up take it for a test ride check for sluggishness, hesitation and excessive smoking when accelerating. When changing gears check for a clanking sound from a manual transmission and slippage from an automatic. These can be signs that the previous owner was a hot-rodder.

The preference in transmissions is largely psychological. Both types have their strong points and weaknesses. Manuals save gas, but people seem to tear out more transfer cases and axles with them. Automatics save the drive train and are less tiring to drive, but the mileage is not as good as for manuals.

If you are purchasing a four-wheel-drive, while on the test ride stop and engage the transfer case and lock the hubs. Does the 4WD engage? Does the transfer case or the transmission clank or whine? If they do watch out for major repairs.

Ok, so now you have found your weekend project. The vehicle is within the price range you set for yourself and there seem to be no major problems. Time to haggle.

Now that you have gone to the courthouse and taken care of the legal red tape and are driving your new baby home, resist the temptation to stop by the local 4WD shop and fill the back of the vehicle with parts. Drive home, park, and try to get your priorities for repair straight.

Here comes the hard part, making the list of repairs based on priority. Start with the repairs that make the vehicle a reliable everyday vehicle. Are the hoses good? Do the oil pan or valve cover gaskets leak? Are the oil and filter in need of a change? Points pitted, or plugs carbon fouled? Radiator need to be flushed and repaired? These are repairs that even knowledgeable car owners can perform with simple instructions from basic car care books, such as the Chilton series.

Main Transportation—Since your vehicle will probably be one of your main sources of transportation, more involved repairs had better be scheduled on off-days, such as weekends and holidays. But, to shorten the time for these repairs try to obtain factory repair manuals for your vehicle if the dealership has them. If your vehicle is too old, your best bet will be a reprint of the factory manuals from Helm, Inc. (P.O. Box 07180, Detroit, Michigan 48207)

These manuals will explain in detail with pictures how to repair almost all of the parts in your vehicle. Obviously, major engine or transmission rebuild is beyond



TOP & ABOVE—The Chevrolet Blazer at top is similar to the author's Blazer without modification. The author's Blazer, bottom, is shown after modification.

RIGHT—Earth tone paint on a vehicle helps hide it in the bush without causing undue attention elsewhere.



the ability of most people but, you can perform rebuilds of smaller items, such as water pumps, alternators, carburetors, starter and brakes.

Major rebuilds; engine, transmission, and transfer case are better left to the professionals. But, careful evaluation of the vehicle before purchase will minimize the chance of needing a major rebuild.

The specter of rust threatens almost every older vehicle in the United States. On the coasts the salt laden air is the main source. Everywhere else it is the rain, snow and salt on the roads during the winter. The idea is to keep rust under control. Repair these small spots before they become big spots. Believe me, bodyfiller is easier to work with than it looks. Paint should be applied to prevent rust, not to dazzle your friends. Primer has a way of keeping your vehicle average looking and above suspicion. No comic book camou-

flage, please. If you have the vehicle painted, use a basic earth tone. You do not want to call attention to yourself.

Modification to make the vehicle more rugged comes next. Again the simpler the modification the easier it is to repair. Resist the temptation to get monster mudder tires on aluminum rims and a 4-inch lift kit. At the worst possible time the huge tire will give out and where can you get a replacement without ordering one? If you do find one, or stockpile them, can you change one of those huge tires with a crowbar without breaking the aluminum rim? Better to stick with basic off-road tire and steel rims.

What if you need extra clearance? I am

(Continued on page 73)

Nez Perce Indian War:

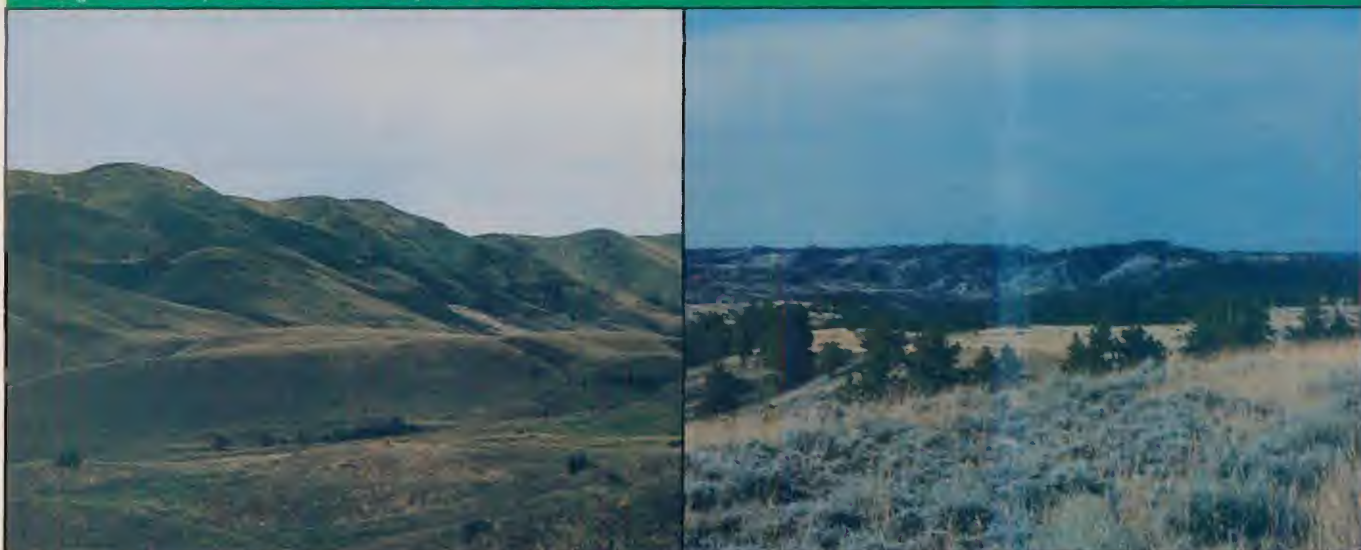
The Saga Of Chief Joseph

Willing to live off the land and supplement their few supplies along the route, Chief Joseph and his band traveled farther than anyone could have predicted . . .

By Ragnar Benson



This and the accompanying photos show some of the battlefields where the Nez Perce fought with pursuing soldiers during their long retreat. The photos were taken 100 years after the battles.





ALTHOUGH not well known or popularly glamorized, the Nez Perce Indian War is among the most remarkable actions occurring during the colorful era in American history known as "opening the West." Chief Joseph, the leader of the Nez Perce tribe, has received only limited notoriety for his extraordinary ability to hold such an unlikely army together under adverse circumstances.

The events spanned five states and 1,600 miles, involving several thousand people, but took less than four months from start to finish. Taken together, it is probably the largest, longest, most difficult horseback retreat ever undertaken.

In all of the U.S. today, there probably aren't a hundred people who could ride a horse 1,600 miles in any period of time, or march 1,600 miles as the troopers did while living mostly off the land as everybody involved did.

Principally, the events occurred in Idaho and Montana, but soldiers as far away as Atlanta, Georgia, and Nome, Alaska, were affected. Our country passed the time of horse transport and was just launching into the era of rapid mass transportation. Remarkable feats were accomplished as men and materials were moved by train and boat over places and distances that just five years earlier would have been totally impossible. Yet the entire action turned on the ability of the contenders to survive off the land. Nobody won or lost till they lost their ability to survive out in the wilds of the untamed West.

The Nez Perce War is the only war ever fought in one of our national parks, much to the consternation of the visitors who came to Yellowstone that year.

It is used to this day as an example of mobility vs. supply and foraging in warfare at the Soviet War College.

Officially the hostilities started early in the morning Sunday, June 17, 1877, in a beautiful large valley in Idaho known as Whitebird Canyon. Six Nez Perce warriors advancing under a flag of truce were fired on by members of an 11-man volunteer party under the command of Captain David Perry. In addition to the loosely held irregulars, Perry's force consisted of 99 well mounted cavalrymen.

The Indians, numbering not over 70 combatants, returned the fire—mostly from Model 77 Winchesters they carried. Since they were far better marksmen, their initial volley had a greater effect, killing Perry's bugler (radio man) among others. Joseph quickly followed with a frontal skirmish and a determined flank sweep that within minutes routed the soldiers, leaving 34 dead and about as many wounded. Nez Perce casualties totaled two slightly wounded.

The action had two immediate effects. It gave the Indians a new supply of military arms and ammo, and nurtured and reinforced the belief among the local citizenry that the Nez Perce were some kind of military supermen. Newspaper accounts exaggerated the leadership ability of Chief Joseph. Looking at the clippings today, they are hard to understand. Whitebird Canyon was the first battle these Indians had ever fought, and other than some raiding a week earlier, the Nez Perce had never taken up arms against the settlers.

In addition, Perry and his men fought under tremendous hardships. Not only

were they unfamiliar with the country, but they had been in the saddle for almost 40 continuous hours. A rest stop had been planned, but the scary citizenry in the little town of Mount Idaho where the detachment had planned to sleep had so harassed them that the troopers continued on after only four hours of rest.

Causes—The original seeds for the conflict were sown 25 years earlier when a wily, old chief, aptly named Lawyer, gave—via a treaty—all of his right, title and interest in all of the neighboring chief's land to the government. Undoubtedly Lawyer assumed he had struck a really fine bargain. In exchange for giving up something he didn't own in the first place, he got the government to quit pestering him. But in later years the encroaching settlers used the treaty to legitimize their status as squatters on Nez Perce land.

Finally in May of 1877, the Nez Perce living around the present day towns of Joseph and Enterprise, Oregon, in country known as the Wallawas, were ordered off their land onto a reservation. The orders came on the basis of the questionable treaty. At the same time the Nez Perce were extremely wealthy. It was said that they had extensive deposits in almost every bank in the northwest. Even when they were captured five months later, one old Nez Perce named Horse's Tail still had over \$6,000 in gold coins in a bag tied to his belt. The Nez Perce under Joseph were the only tribe of Indians ever to become wealthy from their traditional style of living.

Largely the Indian wealth came from the sale of horses. Most of the horses were the famous war horses that the Nez Perce developed, the spotted Appaloosa. They were the only Indian tribe to develop a

(Continued on page 68)



Chief Joseph as he looked in an old picture taken of him and a painting.

Spando-Flage

Staff Report

(Continued on page 71)



TOP & ABOVE—Spando-Flage comes in tubular shapes of up to 24 inches in diameter. Besides the standard tubular netting, there are headnets, arm and hand covers and covers for rifles and bows.



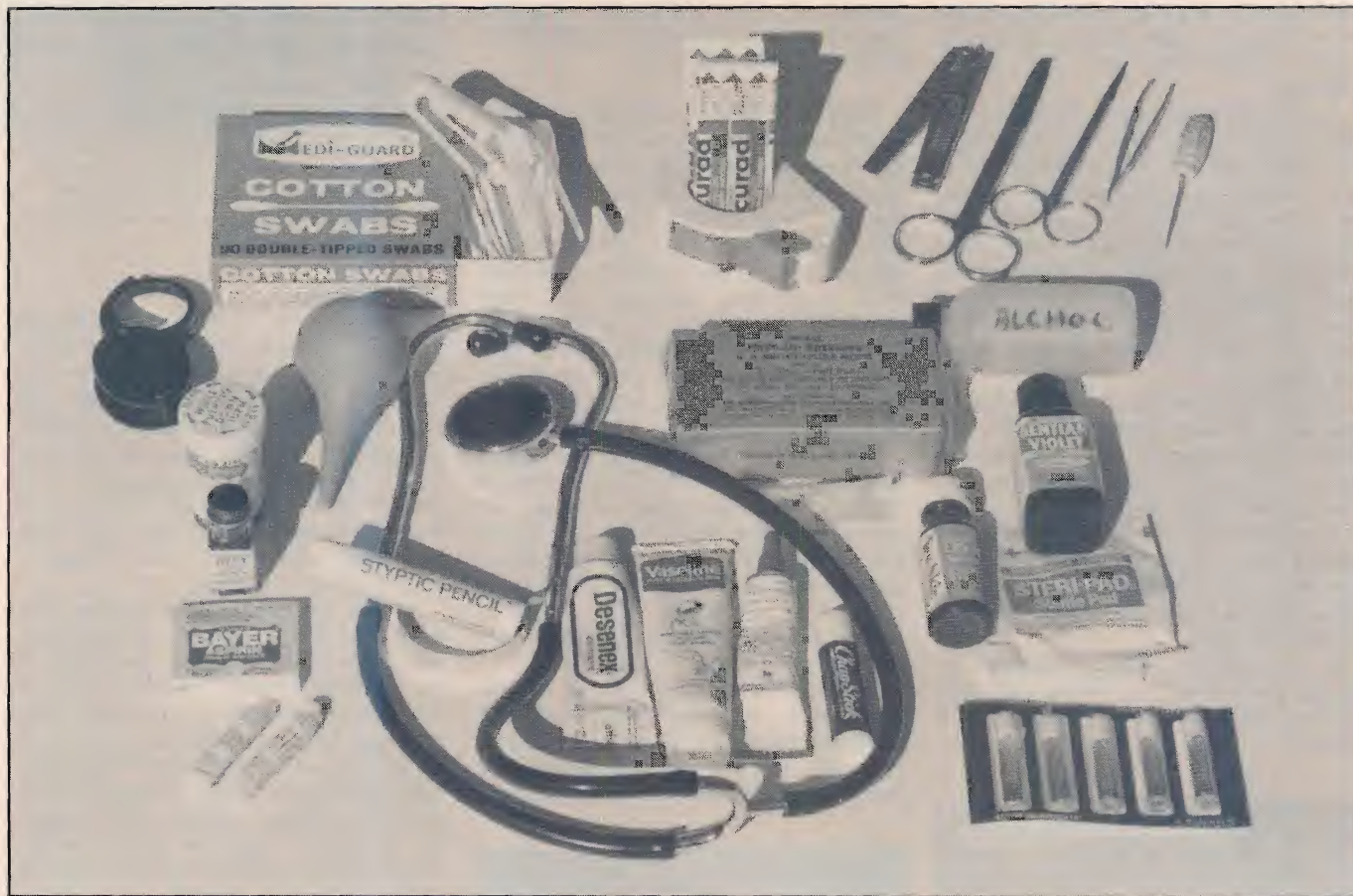
TOP, ABOVE & ABOVE RIGHT—Shown are greybark, black and woodlands green camouflage colors. Desert brown camouflage is also available.

Part III:

Survival Kits

Consideration of personal situations in making your own kits . . .

By Hal Gordon



This custom first aid kit was developed by the author.

IN parts I and II, it was suggested that the time factor requiring an emergency to be stabilized, and the likelihood of that emergency's occurrence would be the criteria for selecting the contents of your survival kits. In addition to this general guide, you will want to consider your personal situation: health, abilities, knowledge, objective, environment, means of travel, special dangers and so on. Taking an average of all these factors we can predict typical priorities for the following types of kits in order, more or less, of their importance.

1. Water.
2. Food.
3. Shelter.
4. Travel.
5. Communication-signals.
6. First aid.
7. Sustained warmth/cool.
8. Personal protection.
9. Repair/maintenance.
10. Light.
11. Survival manuals.
12. Health/sanitation.
13. Vehicle repair kit.
14. Containers.
15. Special tools.
16. Air.
- 17.

Escape/evasion.

Because of space limitations and the special nature of kits designed for warfare and nuclear, chemical or biological attack, they must be subjects of future articles.

Water—Of all your survival kit needs, it's my personal feeling that water stands far and away from the rest as the most critical requirement. Yet, it is the one need most overlooked in commercial survival kits. Let's not make the same mistake here. If you find water in the field, you have to assume that it is contaminated in some way. If you don't have an *effective* water filter, your options are limited to *boiling and chemical purification*. Even then, you'll still ingest harmful chemicals if they're present in the water.

Chlorine-based tablets tend to lose their strength after prolonged storage. Iodine-

based tablets are more effective overall, but taste even worse than chlorine. I'd opt for dependability over taste. If there's space, include a small portable filter. Even the worst one will make your tablets more effective when added to your filtered water.

Many pesticides in the water can be left behind when distilled in a solar still of some kind, but this process will add a whole day to your time factor. Also, you will likely need at least six solar stills to supply you with enough water.

For your medium-sized kits, think about a stainless steel container of some kind; a canteen cup, small pot, etc. It will be useful for melting snow, boiling meat and plants, cooking tough foods, purifying, digging and as part of a still.

When water isn't available, it's up to you to make your own. This usually means

Survival Kits

solar stills, which means plastic sheeting. The more plastic, the more water. You can use any plastic coated material—even a poncho. But for best results choose Dupont's Tedlar 100—designed for the purpose—with a grainy finish on one side. This helps the water drain toward the center instead of falling back into the ground as it condenses. You can't have too much plastic sheeting—providing there's room. You can count some or all of this plastic toward your food and shelter supplies.

An almost never-mentioned aid is the vegetation still. You can use your garbage bag shelter for this one. Clear plastic is best. Toss a selection of roots, leaves, stems and what-have-you into the bag, tie the end and set in the sun. An alternative method is to use some of your plastic sheeting to spread over the top of bushes and low trees to condense the plant's expiration. Allow the open bottom to drain into a container.

When there's no sun, you can use fuel, if available, to heat water over a fire and collect the evaporate in (again) plastic sheets or hook in a tube long enough to allow condensation to drip into a cup.

You need more plastic, this time in the form of bags, to hold water once you make it or find it. Vinyl bags are good, 2-quart to 2-gallon sizes if possible. These are best carried in a pack.

If you will be fortunate enough to require water in an area blessed with early morning dew, make sure you pack away a sponge—the kind that is compressed to

about an 1/8 of an inch in thickness.

In a challenge to the nation's top survival training schools to come up with a compact, under \$50 survival kit, the published results in *The Mother Earth News* disclosed that only one (Tom Brown Jr.) included solar still material.

The final overlooked piece of advice is to use your own body as a canteen. Fill up the stomach at every opportunity. You can carry a whole quart quite comfortably. Your body won't waste it.

Food—Catching emergency food, according to most accounts means carrying fish hooks and snare line. Once again, a very efficient and simple method is ignored: the net. I have one in most of my kits. I can compress a 3 1/2-foot by 15-foot gill net into a large cigarette pack size. With proper use, you can easily catch birds, fish and animals. It is also good for drying food out of an animal's reach. Fine mesh nets also have their place for gathering tiny fish and insects. An insect-protection head net can double for that use.

While often recommended, I don't like monofilament for snares. It's too stiff and the noose springs apart—allowing the animal to escape. Flexible fish line is good for multipurpose uses. Wind various weights of fishline around other articles in your kit to save space. Use it to fill in empty corners. Like plastic sheets, you can't have too much.

A good snare wire is a woven monel (rust proof) wire. It is very bendy and once tightened around an animal, it tends to stay put. You can purchase commercial snares already made with various patented



First aid manuals rate top priority in your pack or kit. After that consider specialized environments or anticipated missions or scenarios.

locking devices.

Snare triggers and various trapping devices can mostly be made in the wilds, but an almost indispensable aid is some illustrations of the various kinds and methods best suited to specific situations and animals. Many of these will be found in the general survival manual. As a further aid to increase the odds in your favor, you can include calls, scent lures and small smoke bombs for getting an animal out of its burrow.

As for emergency foods packed into small survival kits, most recommendations really provide only psychological needs. A few hard candies don't provide the kind of energy you need for 2 to 14 days, for instance. Soups provide the taste to go along with roots or leaves. For life-threatening stays of over 3 days, you need to consider two things: nutrition and calories. It's a simple matter to include multi-vitamin/mineral tablets; balanced protein tablets and extra amounts of vitamin C and calcium.

Keep your nutrition packet sealed and separate so you can routinely rotate it once per year with no waste. Figure how much you'll need by using RDA (Recommended Daily Allowance) and multiply by at least two the calcium requirement and by 20 for the vitamin C requirement. Double the protein recommended allowances.

After this, you'll need concentrated carbohydrates; this means sugar or honey. While fats give you double the energy, they don't store well at all. Like the need for water, carbohydrates are needed in large and bulky amounts—not suited for "tucking into a corner of your pocket kit."

Honey or sugar will store indefinitely with no problems unless the sugar gets wet. Store all you can in your larger kits. I've found that for me the best way to handle emergency energy provisions is to always have trail mix or similar food on me anytime I leave the beaten path. I love to eat it even if there's no emergency. Peanuts



Here are survival water collectors. At top is a 1-gallon folding plastic jug. Center is a commercial water still in its container and a folding 1-quart canteen with water purification tablets. Bottom is a commercial solar still with complete instruction manual.



Wheat is one of the best all-around foods and comes already dehydrated. Also shown are protein tablets with cardboard container sealed in hot wax for longer storage.



These are fire-starting materials and equipment for warmth.

are an excellent food and keep for a couple of years or so if contained in a vacuum can.

The reason for so much emphasis on nutritional supplements is for the simple reason that when your body is under stress, it destroys or throws off huge amounts of calcium, protein, vitamin C, some B vitamins and others to a lesser extent. For this reason, your body can show signs of serious starvation in just a matter of days. Very few survival writers know much about nutrition and much of that is in error. Don't ignore this part of your survival kit preparation—even if you don't read much about it.

One simple answer to the next best thing to the supplements is to take along a container of plain whole wheat grain. Kept dry, it will keep forever. It contains almost everything in adequate ratios except wheat is a little low in one of the essential amino acids. The hardness of the grain is what protects it, but think of it as a delicious hard nut. If you have trouble chewing, a four- to eight-hour soaking will make the grain very soft.

Shelter—This means from wind, rain, snow and sun. The best all-around, compact product is the "Space Blanket" (a foil-lined plastic sheet). It is especially useful as a heat reflector on the desert. Next might be the common garbage bag—a large one. Choose a clear one. Never use it for shelter without first cutting breathing holes.

Use your fishline to tie poles which can support a brush shelter. A knife will make a pointed stick to dig a trench shelter. For bug protection, tie all your cuffs and don a head net.

Fire—Don't get fancy with your fire-starter. You can't beat water and wind-proof matches. Store plenty of them. Butane lighters are good except that they can leak while stored. A commercial

(Continued on page 60)



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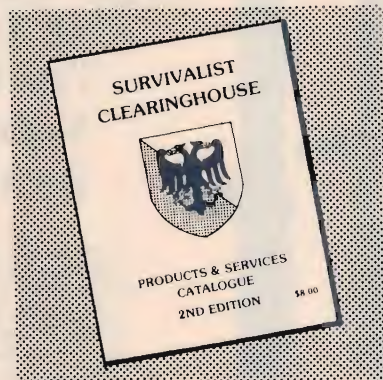


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(Continued from page 59)



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chemical gel that sticks nicely to wood can ignite even wet wood. Include small sandwich bags in which to start your tinder-kindling on a windy night. (Let the bag melt in the resulting fire.) Use thin strips of your wax-impregnated cloth which seals some of your equipment. Wrap a thin strip around a twig for an emergency candle.

For sustained fuel supplies, consider the "sissy" hand-warmers which use either charcoal or lighter fluid. They will keep both your hands and your internal organs warm at the same time.

Clothes—If you forget everything else, don't forget your head! This is the part of your body most susceptible to both heat and cold. A winter minimum would be one ski mask. Summer would require a broad brimmed hat. You can fold a felt hat. Straw is cooler.

Down-filled products are great, except they're useless when they get wet. Use synthetic-filled clothes and sleeping bag. Use gloves for heavy-duty work in the cold, but for plain warmth use mittens.

Heat—It's hard to use countermeasures against the hot sun. Two gallons of water is your first line of defense. Shade is second. Rest during the day and travel or work at night is third. Make sure your kits allow for this 1-2-3 strategy.

Communications Signals—Small and inexpensive CB radios should allow you to consider these—even in smaller kits. For rescue signals, consider: smoke bombs (great for getting a forest ranger's attention), smoke from your fire, whistles, flares (pocket type), folding balloons and kites. It's important to have an illustrated card showing visual code signals plus Morse or international code to use with rocks, sticks and sounds. The mirror is probably your best all-around bet. The hole in the center enables you to aim fairly accurately. The kite and balloon are serious alternatives. The "para-kite is highly efficient and folds in to a small package. With shiny plastic streamers they stand out nicely. Believe it or not, there is a tiny, hand-size kit which

will send up a three-foot balloon filled from a small helium tank and it displays a long bright tail.

First Aid—Chances are good that you won't suffer serious bleeding, broken bones or disabling disease, but you can count on blisters, splinters and small cuts. Counter with tweezers, small bandages and a tube of disinfectant. After that, your medical kit can grow amazingly fast in size. The only substitute for a huge medicine chest is a good first aid manual.

The *Ship's Medicine Chest* is good, but too large. Three smaller ones are fairly good: *Medicine for Mountaineering*, *First Aid Without Panic* and a brand new one, *Your Offshore Doctor for Seamen*, by Dodd, Mead & Co. Study these guides for information on supplying your kit. There are many valuable drugs which require prescriptions. This means you should get a thorough exam from your doctor so he can prescribe the drugs to which you aren't allergic. The commercial medical kits take a big burden of selection decisions from you. Before ordering, make sure you know everything in their kits so you can coordinate other kits with them.

Travel—This usually means by foot. Select comfortable boots/shoes or forget it! Test them out! Wear your "survival" foot gear even on short weekend hikes or outings. Plan for the areas you frequent and provide yourself with a topographical map for each area.

Your compass should have a luminescent dial for night travel. The liquid-filled models are much easier to use while walking. A wrist model is the handiest. Search military surplus. Consider a separate medical kit just for your feet—they are that important. Include supplies to counter sprain, athlete's foot, blisters, corns and a means to keep your feet dry and clean. If you are older use a plastic heel cup to protect the ligaments on the bottom of your feet.

Planning ahead will aid in being prepared. Consider: lakes, streams, oceans, snow, ice, rain, wind, cliffs, mountains, marshes, jungles, and deserts. Will you need rope? Skis? Snowshoes?

Cutting Tools—The knife is a survival kit all in itself, but you must choose the one or two best for you: sheath, folding-locking, tiny, big. Other cutting tools you'll find useful are: razor blades, scalpels, saws for wood and metal. A workable "micro" sharpener is a small piece or two of the finest emergency cloth.

Some thoughts: you won't need a large knife; an axe is heavy; log-cutting saw blades are light and compact; bolt cutters get you through obstacles; files make or repair tools. ●

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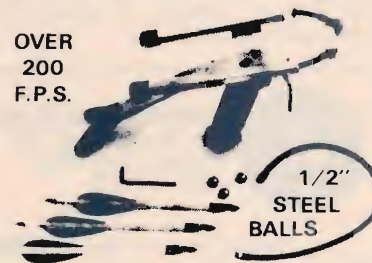
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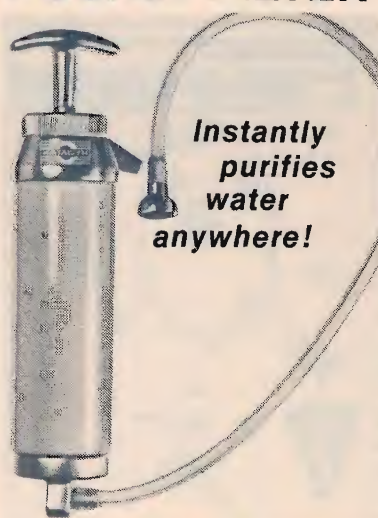
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HBAR Sporter Rifle

(Continued from page 24)

able, we were unable to try it out in the test rifle. The closest thing we could find on the civilian market to the SS-109 is the Israeli Sampson .223 Remington cartridge with its 63-grain bullet which is distributed by Action Ammo of Philadelphia. Action Ammo graciously provided us with 100 rounds of this ammunition which we put to good use in our testing. More about that later.

The sights on the HBAR are the same as those on the new M16 A2 rifles being issued to our military forces. There are two rear peep sights, one for distances of from 0 to 200 meters, the other for distances of from 300 to 800 meters with a smaller aperture. A flick of the index finger switches the sight from 0 to 200 meters or 300 to 800 meters. When firing the rifle at the lower ranges, the evaluation knob below the rear sight should be set at 3/8 low. With the smaller aperture in use the evaluation knob is set at the range required: 3/8 low for up to 300 meters; 4 for 400 meters; 5 for 500 meters; 6 for 600 meters; 7 for 700 meters; and 3/8 high for 800 meters. A windage knob on the right and above the elevation knob is adjustable so that each click moves the point of impact horizontally on the target, clockwise to move point of impact to the right and counterclockwise to move it to the left. The square blade front sight post is adjustable for elevation for zeroing.

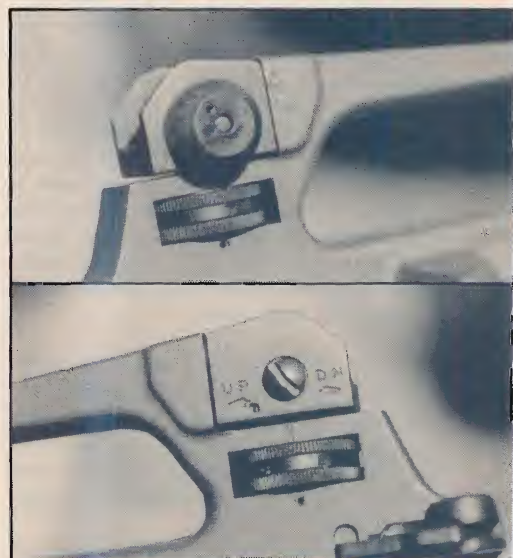
As with all other M16/AR-15 rifles except the AR-15 9mm carbine which operates by blowback, the HBAR is a gas-operated weapon. As the bullet passes the gas port below the front sight, gas is tapped off and flows through the gas tube into the bolt carrier chamber driving the bolt carrier rearward which sets in motion the actions necessary to eject the spent casing, strip a new cartridge from the magazine, chamber it and cock the hammer.

The HBAR is shipped with a 1 1/4-inch-wide target style sling which is meant for steadying aim and improving accuracy, two 20-round magazines and cleaning items. Thirty- and 40-round magazines are also available.

Accessories—To make best use of the HBAR, we fitted it with a Swarovski 1.5 X 14 Cobra scope. This scope is proving popular with law enforcement personnel who use AR-15s and M16s. The scope provides a rugged 1-inch steel tube combined with the high quality Swarovski optics for fast, on-target response to threats. Cobra scopes help engage the target for accurate semi-automatic and full-automatic fire from all types of rifles and submachine guns. These scopes require no batteries or other aids that could fail at a critical moment. The target is sighted through the scope in a small circle. For pinpoint accuracy, a tiny



There are two flip-up rear peep sights. The larger aperture, here, is for sighting at distances of from 0 to 200 meters. The smaller aperture is for ranges from 300 to 800 meters.



A click-adjustable windage knob is located on the right side of the upper receiver above the elevation wheel. The elevation knob is also click adjustable.

black dot in the center of the circle is used.

The closed-bottom bird cage flash suppressor which vents gases upwards, thus reducing recoil, worked well on the HBAR we tested, but we removed it and attached a DTA MIL/BRAKE muzzle brake from Fabian Bros. of San Diego to further reduce felt recoil. We were pleased with the results. There was quick reacquisition of the target in multi-shot tests with almost no muzzle rise and little perceived recoil.

Testing—After some zeroing adjustments, we were ready to try out our HBAR at the range. Several testing sessions were conducted at a nearby rifle range and at legal public shooting areas.

In all some 200 rounds of American Eagle 5.56mm cartridges with 55-grain metal jacketed boat tail bullets, and 100 rounds of Samson .223 Remington cartridges with 63-grain Spitzer flat base bullets were fired through the HBAR. There was not one malfunction of any

type. The rifle performed flawlessly for us.

One of the big pluses of this rifle for me, being a primarily left-handed shooter, is the forged cartridge case deflector located on the HBAR at the rear of the ejection port. Without this feature, left-handed shooting is impossible unless you like being struck in the face by spent casings. The casing deflector in my opinion is one of the best improvements Colt has come up with for this rifle.

At the range, firing with a standard G.I. bipod, I was able to shoot a 2 1/8-inch 10-shot group at 100 yards with the Samson ammunition and using the scope.

I'm sure that with practice I can reduce the size of my groups considerably. During testing this 2 1/8-inch group was my best, with other groups being from 1/2 to 1 or more inches larger using Samson and the American Eagle ammunition. Again, with time and practice I have no doubt I can improve this situation, but for now, I am quite impressed. I did find the rear sight apertures a little large for best sight picture attainment. I found myself using the smaller aperture exclusively and wishing it was smaller still, like the one on the Galil MR 372 .223 assault rifle I tested last year. But with more practice I'm sure I can do better with these sights, and I was not using them in a combat situation which they were designed for.

The Colt AR-15 A2 HBAR is, without question, one of the finest .223 rifles available today. I like this gun so much I am going to buy one, and I am looking forward to many hours of shooting with it, for shooting it is indeed a pleasure. This is the best civilian rifle of its type Colt has produced so far, for my money. It's rugged, reliable and deadly accurate and is ideal for match shooting or sniping. Colt expects to be up to full production of 500 to 600 HBARS a month by about the time this article is printed, so you should soon begin seeing more of these outstanding rifles around. Take a look at one. ●

AR-15 A2 HBAR Sporter: Tech Specs

Stock Fixed buttstock with storage compartment
Finish Black, non-reflective
Weight, pounds 8.75 with empty magazine
Barrel length, inches 20
Overall length, inches 39
Magazine capacities 20, 30, 40
Sights Fully adjustable and quick-flip range change rear; zeroing adjustable front square blade
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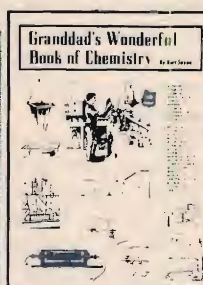
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Solingen Steel: Eye Brand's Survival Companion

Quality cutlery from the craftsmen of Solingen, West Germany . . .

By Bob Clark

ORIGINALLY established as a manufacturer of fine cutlery in the late 1700s, the name Carl Schlieper is certainly one of the oldest and most respected names in the business. During that time the Schlieper works has also developed one of the most extensive lines with over 175 patterns including hunting knives, kitchen cutlery, razors, folding knives and scissors.

Separated from the Schlieper Tool and Cutlery company in 1898, Carl Schlieper established the world renowned Carl Schlieper cutlery works in Solingen, West Germany. This facility, now under the directorship of Mr. Hanspeter Schlieper, has serviced a growing world demand for the Solingen blade since the late 1800s.

Interestingly enough, some 95 percent of the pocket and folding knives produced by Schlieper are being shipped to their sole U.S. distributor, Knife Importers in Austin, Texas. Knife Importers currently markets the entire Schlieper line under the Eye Brand name.

One of the most notable additions to the Eye Brand line-up is the Hunting Man's Survival Companion. Measuring 7 1/4 inches, the Eye Brand survival knife blade, as with all Schlieper cutlery, is hand crafted to exacting specifications using techniques refined over the centuries. Each knife features 13 percent chromium stainless steel with a Rockwell hardness of 55-58. In addition, all knives are ice tempered. This process involves quenching the blade to -108.4 to -112 F. prior to tempering. The advantage of the ice tempering is an incredibly long lasting cutting edge. The Survival Companion also features a waterproof nylon/fiberglass handle for storage and solid brass tang. The sawtooth edge is extremely aggressive and cuts on the pull stroke for safety.

Each Hunting Man's Survival Companion comes with a sturdy hand crafted sheath fit with separate pocket for optional sharpening stone. A fluid filled compass in brass or black is also optional.

The Eye Brand Hunting Man's Survival Companion, is certainly one of the finest



Extremely aggressive sawtooth blade cuts on return stroke for safety. Tang is solid brass. Hunting Man's Survival Companion is shown here with armor coated binoculars from Swarovski and unique Survivor III shelter system.

knives of its type available at any price and should be considered by anyone in the market for such a blade. It should be mentioned that the same knife is available with a black teflon coated blade. The standard blade retails for \$94 while the teflon coated model sells for \$97. Both are available, along with the complete line of Eye Brand Cutlery, from: Knife Importers, Inc., PO Box 2122, Dept. ASG, Austin, TX 78768



ABOVE — Hollow handle of the Survival knife is made of nylon with fiberglass spun in. Optional screw in butt cap features fluid filled compass.

LEFT — Distributed under the Eye Brand name, Schlieper knives are recognized around the world for their superior quality and standard of workmanship. Eye Brand offers one of the largest selections of cutlery with over 175 patterns. Shown here with the Hunting Man's Survival Companion is the Hunting Man's Skinner knife. The Skinner features the same high quality hammer forged, ice tempered blade make-up as other Solingen knives and a genuine stag handle. This knife with 4 1/4-inch blade sells for \$56.95. Pocket on the Survival sheath is for optional sharpening stone.

Private Armies

(Continued from page 34)

to collect data would be a violation of various laws and regulations. In many cases, only an analysis of open sources is allowed.

Most private armies loudly proclaim to be—and probably are—staunchly anti-communist and would not knowingly accept funds or equipment from communist sources. Communist covert aid, however, could reach them through “acceptable” channels. The missions of many private armies would be completely compatible with the objectives of Moscow or Havana during crisis relocation or mobilization. By supplying the PAs with funds, weapons, and perhaps even a covert Spetznaz advisor or two would be considered a plausible mission, freeing assets such as their own in-place agents, Spetznaz units, and terrorists for other missions of sabotage while the private armies unwittingly tie up U.S. forces.

It seems to be an inescapable conclusion to many military analysts and planners that in times of severe domestic crisis, some kind of citizen's militia would be necessary.

The alternatives are grimmer. Our defense planners and law enforcement officials not only have to face those paramilitary groups which are now waging their own private terrorist war, but must develop contingency plans to combat the thousands of private army members who vow to strike when conditions are right.

Are the private army warriors just Walter Mittys who have nothing to lose but their fantasies, or are they deadly serious and highly trained—and in a position to tie our country up in knots when the “balloon goes up”?

Perhaps part of the answer can be found in the contents of an eight page “Private Army Declaration and Proclamation” which was approved by a convention of paramilitary groups on July 4, 1976. One section read:

“Let us then arise and gird ourselves for the battle of the ages! Ideologies of Satanic slavery can be heard from every direction. Our chains are already being forged in the halls of hell! The freedom hewn from the blood, sweat, tears and sacrifices of those who established it for us all shall be preserved! Should it be our lot to die, then let it be with courage and honor.”

The document was approved that Independence Day and ratified by the representatives of dozens of private armies and identity groups.

Those law enforcement agencies and intelligence analysts who understand the mentality of the private army warriors are not betting on their patience to wait and outbreed the rest of the Pacific Northwest. These people want their Armageddon now! And they have the plans, the weapons, and the expertise to hasten that dreadful day. ●

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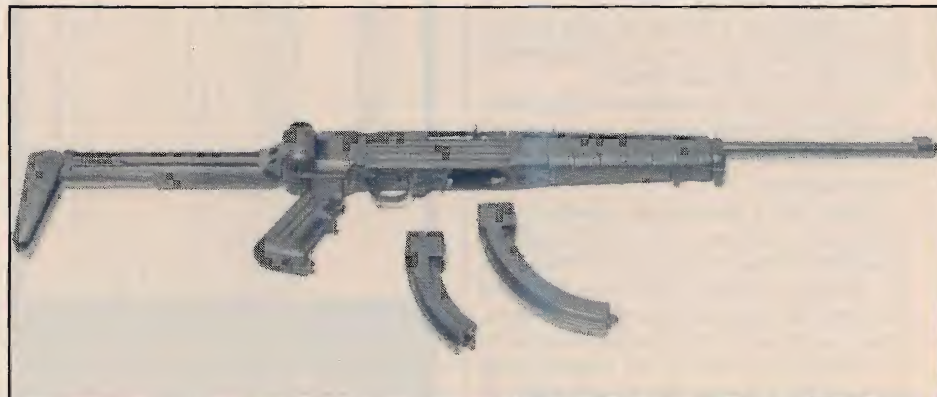
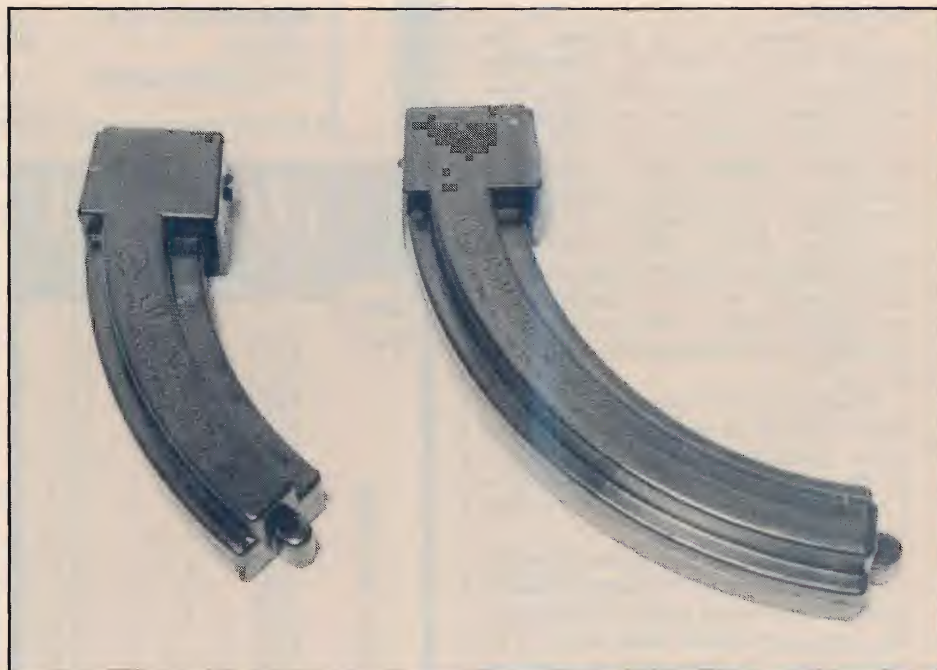
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The Saga Of Chief Joseph

(Continued from page 55)



A rare picture of the Nez Perce, taken around 1892, when some of the chiefs jumped the reservation.

breed of horses and are often remembered for this feat more than for their conduct of the war.

It is interesting to note that in order to make the move onto the reservation as ordered, the Indians had to cross the mighty Snake River during flood stage. Led by Joseph, who later distinguished himself as a warrior-tactician, the little group of men, women, and children made the treacherous crossing without incident. They took with them over 2,500 head of stock and all their personal belongings. Later the U.S. cavalry tried the same maneuver with disastrous results.

It boggles the imagination to stand deep in the bowels of Hells Canyon, our nation's deepest gorge, and realize that the Nez Perce crossed here—without ropes, cables or boats—and not one little child was lost. According to tradition, they used their horses to pull pontoon craft floated by inflated horsehide bladders.

After crossing the Snake, Joseph led his tired band to a traditional camping area near Lake Tolo in the north central panhandle region of Idaho.

Now only a few miles from the reservation boundary, the Indians rested and put up supplies. They were in no hurry to enter the reservation and intended to use all of the days allocated to dig camas roots, butcher and dry meat, mend tents and repair their gear. However, fate decreed differently.

Accounts vary, but it is generally accepted that a young, handsome Indian named Wahlitits was taunted by an enraged mother whose daughter was unlucky enough to be discovered in the former's bed. A mother's rage in such a situation is understandable, but in Wahlitits' case it proved to be devastating.

Four years earlier, Eagle Robe, the father of Wahlitits, had been murdered by

settlers. Nothing had been done by either the whites or the Indians, but an irate mother took her chance to scorn a proud fatherless boy for sleeping with her daughter rather than avenging the death of his father.

Wahlitits brooded over the incident for a day. Then he and two friends went on the warpath. It was the first time Nez Perce harmed any Europeans, although there were about 30 cases of whites killing Nez Perce in the previous 25 years.

During the first 24 hours, the three caught and killed four hard case settlers. All were guilty of murdering Nez Perce or of selling whiskey to them. They returned to camp flush with success and recruited 16 additional braves. This well-mounted and very mobile party brought the toll to about 20 dead settlers in the next two days.

It should be noted that the Indians were not on indiscriminate raiding missions, nor did they mutilate their victims. All of the targets were people who had murdered, beaten, stolen from, or sold whiskey to, the Nez Perce. Later in the war the troopers and scouts often scalped fallen Indians, but the Nez Perce themselves never did.

Apparently the six Nez Perce braves, advancing under the white flag at Whitebird intended to hand over the young warriors responsible for the killings. But the civilians wanted to fight and steal Nez Perce horses, so the die was cast.

After the Battle of Whitebird, Chief Joseph led his small but growing band south across the Salmon River into what today is known as the Joseph Plain. It was a bold and successful maneuver.

General Howard, the supreme U.S. Cavalry commander in the area, tried to follow, assuming he could starve the Indians on the high, bleak plateau.

Howard and his approximately 500 regulars, packers, and scouts arrived on

the Salmon 10 days later. The Salmon is a wild, deep, fast flowing river that the soldiers had trouble negotiating. They finally made it across after two days, but they had to use boats, cables and floats.

The crossing was a ruse on the Indians' part. They immediately moved upstream about 30 miles and crossed again, doubling back to the original camp at Lake Tolo, leaving Howard to starve on the barren plateau. With the troopers mired down across the river, Joseph with his tremendous remount ability, had a clear path into Montana to the northeast.

The pony soldiers understood that every man, woman and child in the Nez Perce camp was a seasoned, accomplished packer, rider and wrangler. Even the youngest child rode well and could make camp and pack horses. Probably this is why they targeted the women and children in the Nez Perce camps when they attacked.

In contrast, the cavalry was slowed by having to carry along hundreds of packers, wranglers and pioneers to cut the way and transport the main force. Progress for the army was painfully slow.

Although it was not apparent to the soldiers, the Indians had adopted a holding pattern calculated to avoid further conflict. By tribal vote they had elected to leave their homeland in Idaho and Oregon and move into Montana away from what they supposed was General Howard's jurisdiction. They didn't want further war with anyone, they simply wanted to go someplace where they could raise and train their horses and cattle and live in peace.

On July 5, Howard finally managed to catch up with the Nez Perce. He attacked from the high ground across the south fork of the Clearwater while the Indians were in camp. The odds were about 350 to 600, but 28 Nez Perce warriors held the troopers off. They inflicted heavy casualties while

allowing the women and children enough time to pack the camp and retreat with all of their stock.

And so they went. At Kamiah, Idaho, five Nez Perce turned back a patrol of at least 60 cavalry. To add insult to injury, they followed the cavalry patrol back to the main camp and rustled over 400 army horses, some of which they had undoubtedly sold to the U.S. government in years past.

Avoiding Battle—The Indians, ever on the move east, did everything they could to avoid battle. They crossed the infamous Lolo Trail into Montana in just nine days. When Howard followed 10 days later, he described the trail as the worst in North America. It probably was. Seventy years earlier Lewis and Clark almost starved crossing the same piece of real estate.

In Montana the Indians found their path blocked by Captain Rawins, assisted by five officers, 30 enlisted men and about 100 volunteers.

Rather than fight, the Nez Perce sent their best negotiators forward. On learning that the Indians hadn't lost a battle or skirmish, and that they didn't really want to fight Montana settlers, the 100 volunteers suddenly remembered urgent business elsewhere. A few token shots were fired, but the Indians passed unharmed. The fort was renamed Fort Fizzle in honor of the occasion.

In Montana's Bitterroot Valley, the Indians stopped at the little towns along what is now Highway 93 and bought blankets, pots, beans and flour and, of course, ammunition. They paid in hard cash for the minimal supplies they needed to survive.

At Big Hole, Montana, now more than 1,000 miles from home, they fought again. This was a bloody encounter with casualties in the hundreds. The troopers attacked the sleeping village at dawn, but were almost annihilated by the furious red men when they counterattacked. Only the timely arrival of a second force saved the first group of troopers.

Still they went on. Turning south to avoid settlements, they passed through Yellowstone Park, much to the consternation of the vacationers. Actions were fought in the park. Today many reminders of the encounter remain. Rope burnt trees, wagon scrapes, camp areas, creeks and others with names suggesting the Nez Perce were there.

According to Howard's journal, he felt like he was marching in a Fourth of July parade immediately behind the horses. Joseph swept up every available mount, leaving some worn, tired yet valuable mounts in trade. All the feed was taken or consumed. Howard even had to haul hay for his cavalry in wagons! Their slogan was

(Continued on page 70)



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NJ SWORDS

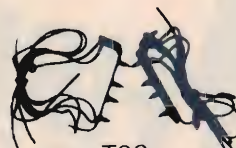
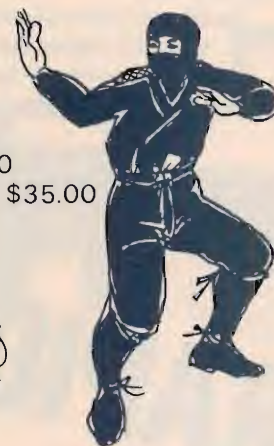
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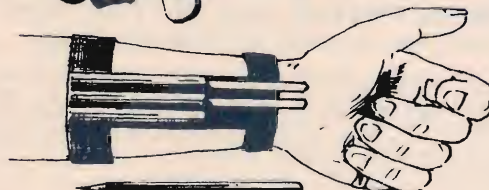
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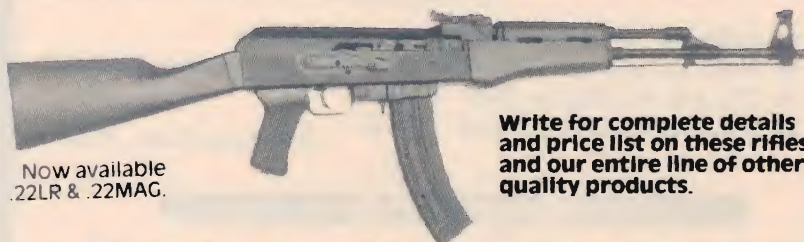
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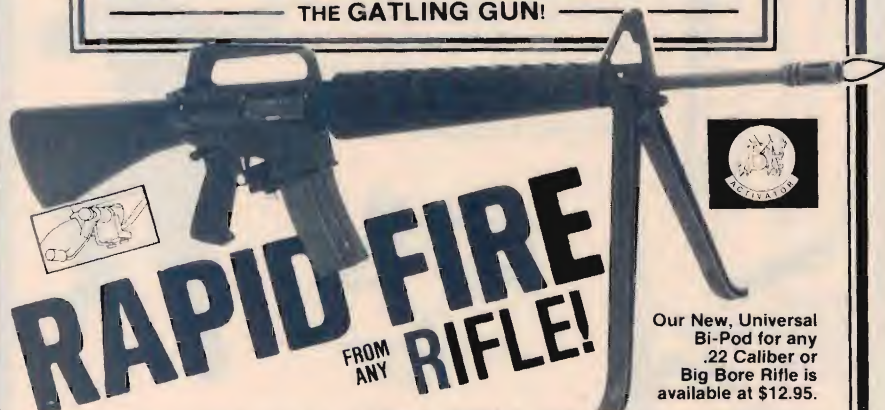
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The Saga Of Chief Joseph

(Continued from page 69)

"40 miles a day on dried beans and hay."

Now the objective became the Canadian border where the Indians hoped to forever leave Howard's jurisdiction. They fought at Canyon Creek and engaged in numerous skirmishes. Always the Indians won the battle, but victory had its price and their strength was ebbing. Many of the best warriors were gone. All had lost close family members. Worn horses were often slaughtered for food. The best Indian mounts were now ragged and thin.

The end came in the Bear Paw Mountains of Montana, 60 miles south of the Canadian border. Another captain with another fresh force swung into battle and was reuplised with 20 percent casualties. The Nez Perce held on for six more days, but this new man, a Captain Miles, had accomplished what no other soldier had or could. He managed to capture and/or run off the Nez Perce horses and to drive them away from their tents and supplies. Under constant attack they could no longer forage, dig roots or hunt.

Between 60 and 100 of the younger, unharmed Indians managed to slip away on foot to safety in Canada. Chief Joseph, however, elected to stay behind with the wounded, the very young and the old, enduring the pounding of the army's 12-pound Horitzer till it was past endurance.

Although few people have heard of the Nez Perce tribe, many have heard at least parts of Chief Joseph's surrender speech. The following is the most accurate, complete account on record.

"Tell General Howard I know his heart. What he told me before I have in my heart. I am tired of fighting. Our chiefs are killed. Looking Glass is dead. The old men are all killed. It is the young men who say yes or no. He who led the young men is dead. It is cold and we have no blankets. The little children are freezing to death. My people some of them have run away to the hills and have no blankets, no food, no one knows where they are, perhaps freezing to death. I want time to look for my children and see how many of them I can find. Maybe I shall find them among the dead. Hear me my chiefs, I am tired, my heart is sick and sad. From where the sun now stands, I will fight no more forever."

And so it ended. Most of the 418 prisoners never saw their homelands again, although they were for the most part well treated. Today their greatest monument is the breed of horses they left, the beautiful spotted Appaloosa.

By their being willing and able to live off the land and supplement their few supplies along their route, Chief Joseph's band had been able to move farther and keep fighting longer than anyone had thought possible. ●

Spando-Flage

(Continued from page 56)



Spando-Flage has a 10-to-1 expansion ratio and has thermal and ventilation qualities for any weather condition.

This material eliminates the need for messy face paint while providing protection from insects. Spando-Flage is tubular in design and comes in 1½-inch, 4-inch and 24-inch (diameter) sizes. It weighs only 4 ounces per square foot.

There are four basic colors: woodlands green camouflage; desert brown camouflage; greybark grey camouflage; and solid black.

Amacker Products, Inc., manufacturer of Spando-Flage, makes Spando-Flage Commando Headnets, Arm Covers weapon and bow limb "socks" and larger tubular netting—each in the four colors mentioned above.

The Spando-Flage material provides ventilation for warm weather, insulation for cold weather, is ravel-proof and washable. It conforms to the shape of your head, arm, rifle, bow or whatever with no excess loose material.

With its extremely flexible 10-to-1 stretch ratio, the larger Spando-Flage tubular netting can be fitted over many items for maximum camouflage deception.

The large (24-inch) tubular netting in various sizes sells for \$29.95 per yard. The arm covers are \$10.95 per pair. The weapon socks are \$6.95 each. Bow limb socks are \$9.95 each. Headnets are \$6.95 each.

Spando-Flage products are sold nationwide at military surplus, sporting goods and gun stores, mail order firms and other retail outlets, or you may order direct from Amacker Products, Inc., Dept. ASG, 602 Kimbrough Drive, P.O. Box 1432, Tallulah, LA 71282; telephone toll free (800) 228-4846; in Louisiana call (318) 574-4903.

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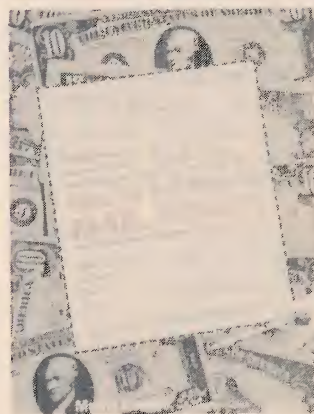
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Suzuki Samurai

(Continued from page 78)



for 16 years.

We took the 1986 Samurai we had into California's desert mountains near Palm Springs and put it through its paces during a limited road test. We didn't have the opportunity to use the vehicle in the four-wheel-drive mode very much since the hard, dry desert terrain was best suited to the standard two-wheel drive mode, according to manufacturer's recommendations. But this little scooter performed well in both modes on bumpy dirt roads, up hillsides and over rocky, weed-covered terrain. We did find that the Samurai tended to bounce a lot when it ran over bumps or potholes. With a minimum ground clearance of 8.1 inches we had no problems making it over the terrain we were traveling on.

This is no racer, but we found we had plenty of pickup on or off road, and on the highways the Suzuki kept up with traffic nicely, although it displayed a noticeable lack of power on hills and in high winds.

While it's probably the smallest 4x4 on the road in this country today, we found we had plenty of room for from two to four people. The rear seat folds up to make way for hauling quite an assortment of gear.

The Samurai we drove was the JX model with air conditioning and stereo AM/FM cassette receiver, which made driving it that much more pleasurable.

After several staffers drove the Samurai and discussed its strong and weak points, we came to a general conclusion that it's on the whole a pretty spunky little machine which will get you from here to there in style and relative comfort. But for serious off-roading you'd probably want something heavier and more powerful. Still, within its limitations, the Samurai is a good performer for getting around at the beach, in the hills or about town. ●

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Getaway Vehicle

(Continued from page 53)

a firm believer that 4-inch lift kits are made by companies that sell drive train parts. It is unbelievable the strain lifting a truck 4 inches will put on the universal joints, axles, and differentials. If you feel that you need a little bit of extra clearance try a 2-inch lift kit. They seem not to wear out components any faster than stock height and they use standard shocks on 2-inch lift kits.

Accessories that come in handy are the after market bumpers, roll cages and shields. These bumpers are made from 3-inch pipe and are very sturdy. They can come in very handy for protection and pushing abandoned vehicles out of your way. A roll cage will protect the driver and occupants during wrecks and rollovers. The shields fit on the front and rear axles, transfer case and gas tank. These keep the truck from being damaged when traveling over rocks, trees, and through ditches.

What if your bug-out area is beyond the limit of your gas supply? Or maybe you are like my wife, "Suzy Safety," and just like to carry extra gasoline. 4WD accessory shops can specialize in both add-on and replacement tanks that range from the stock 21 gallons to the oversize 50 gallons. Even if there is not an application available for your vehicle the shop can probably point you in the direction of a custom tank builder.

While you are at the 4WD shop, check on other items that may be useful: dual front and rear shocks, special seat belts, dual battery systems, winches, etc.

Radios—Finally, on the trip away from the city you will need to know what is ahead. There are several radios that will fill this requirement. The most basic is a standard AM/FM radio. 640 Khz and 1240 Khz are still the standard civil defense frequencies. A unique addition to an AM radio is a converter that allows you to hear your favorite shortwave band on the AM dial.

Other good sources of information include scanners, CB radios, and amateur radios. Scanners will allow you to listen to civil defense, police and fire frequencies, which are always a good source of information in an emergency. CB and amateur radios allow you to communicate with other vehicles and base stations. The FCC allows anyone to operate a CB, but requires testing to use amateur radios.

The main idea that I am trying to get across is to think about your vehicle and your parts purchases logically. The successful outcome of this endeavor will be a vehicle that is practical, serviceable, and does not scream survivalist. Also gained will be the ability to repair your own vehicle and the confidence you receive will follow you to other endeavors of self sufficiency. ●

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Handy Items:

Nunn's Survival Kit

Build it as you want it . . .

Staff Evaluation



THE Nunn's Survival Kit is a handy bunch of items to take along on an outing with your car, motorcycle or camper. If you planned to take nothing else along on a day's hike in the woods, this kit might be a good thing to sling over your shoulder and carry with you.

The standard kit items can be ordered with an optional sturdy nylon musette bag to carry them in for \$38.75 plus \$5.88 shipping and handling (California residents add 6 percent sales tax) from Nunn's Emporium, Dept. ASG, 14171 Vernice Ave., San Jose, CA 95117; (408) 251-6595.

These kits are designed on a modular, build-it-as-you-want-it basis so you can add or replace items as you please, and there's plenty of room in the standard kit with musette bag to add extra items.

The kit includes the musette bag with wrap-around carrying handles and adjustable shoulder strap in camouflage; 11-utensil Combination Knife Set with fork,

spoon, knife blade, saw, draw knife, awl, bottle opener, scissors, file, screwdriver and cork screw; U.S. Army FM 21-76 survival field manual; German Army plastic canteen; 4 MRE retort meals; Spanish mess kit; Ouch First Aid Kit with manual, first aid cream, adhesive bandages, anti-septic towelettes and tape strips; sewing kit, plastic flashlight; iodine water purification tablets; and disposable butane lighter.

There is no compass included so you might want to add one, but the survival manual tells you how to find direction without a compass, along with a great deal of other information to help you survive.

While this kit is not as sophisticated as others on the market it contains useful items which could prove to be of considerable value in a survival situation. For more information contact Nunn's Emporium. Send \$1 for catalog of other Nunn's products. ●

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By Bill London

COLOR PHOTOS COURTESY OF FOREST PRODUCTS RESEARCH AND DEVELOPMENT INSTITUTE, THE PHILIPPINES



Charcoal is being made in this steel kiln which will hold more than a cord of wood. Note the separate firebox and round steel door that seals the oven.

CHARCOAL is wood that has been baked, not burned. The impurities—tars, oils, alcohols, and water—have vaporized, leaving only the carbon skeleton. Charcoaling concentrates wood's heating value, making a purer fuel, lighter in weight and easier to transport, that

burns without smoke.

Charcoal in its natural form, as produced in the pit oven or steel kiln, bears little resemblance to the commercial briquet bagged for sale at the local market. Briquets are made of pulverized charcoal, bound with various chemical glues into the

conventional pillow shape. The smoking, the problems with ignition, and the characteristic odors are results of the additives and the density of the briquets.

Natural charcoal is shiny, black. It retains the shape of its original wood source, whether coconut husks or pine branches. Charcoal made from different species of wood varies in density, but chemically, it is identical (more than 80 percent carbon, with some water, ash and a miniscule amount of other impurities).

Until the ready availability of petroleum products early in this century, charcoal was an important fuel in the U.S. (for blacksmith's forges as well as home and industrial heating). Equally important was the naval stores industry, using the by-products of the process: the pitch, turpentine, and resins made by cooling and condensing the impurities baked out of the wood.

But charcoal should not be neglected now. It is easy to make, and because of its high heat content, efficient to use and transport. Charcoal fires are very easy to start. Just add a match to crumpled paper or other light kindling under the charcoal, and spend a few seconds blowing the embers. When the paper burns away, the fire is smokeless (due to the purity of the fuel) and will never betray a camping site.

Charcoal was originally made in pits. The method is simple and inexpensive, but the baking is often incomplete, and the wood only partly charred. As with all charcoal-making methods, air intake must be carefully regulated. Too much oxygen will allow all the wood to burn. The goal is to burn some wood to bake the rest slowly and uniformly.

To begin, dig a rectangular pit in firm soil (the size varies with the amount of charcoal desired from the firing). The hole can be lined with concrete blocks or sheets of steel roofing, if the soil is soft. At the bottom, place several pieces of wood of similar diameter (and each as long as the pit) parallel and 18 inches apart. Those stringers provide air circulation. Then add the wood, packed tightly, across the stringers. Fill the pit to about 18 inches above ground level. Cover with a roof of flattened metal drums or other steel sheeting. This cover should match the dimensions of the hole so that it will gradually move down as the burning lessens the volume of the charge. Air leakage is minimized with a layer of sand on top.

Construct a simple chimney and an air intake at one end, and pile kindling materials on the wood at the other end of the pit. Ignite with a rag soaked in diesel or kerosene. Plug the chimney and intake with mud when the smoke disappears (about three days). The pit cools for another 72 hours, because if it is opened while hot, it will burst into flame.

Kilns—Simple charcoal-making kilns can be made from 55-gallon drums. Using uniform-sized wood produces the best



results from these basic kilns. Begin by cutting a 16-inch diameter hole in the center of a drum top. Next cut a 20-inch diameter circle from the top of a different barrel. Cut a four-inch hole in the large circle and mount a metal vent pipe on it for use as the chimney. Then drill three sets of four holes, each a half-inch in diameter, in the sides of the drum with the 16-inch circle removed. One set of four holes is placed near the bottom, one midway, and one near the top of the walls. The four holes are spaced uniformly around the barrel. Those 12 holes are air inlets.

To load the drum, first place a log (about four inches in diameter) vertically in the barrel. Remove the log after you place the wood charge around it. Add kindling and a burning rag as with the pit method. After the fire is well underway, put the 20-inch circle (with the chimney) on the drum top. As the burning converts the charge into red embers at one layer, (check this by looking in the holes) plug the holes on that layer with mud. Allow the charcoal to cool before opening. Based upon experiments at the Forest Products Research and Development Institute in the Philippines, this modified drum produces high yields of good quality charcoal, superior to pit baking.

More elaborate kilns can be made of adobe, brick or cement in the traditional beehive design. Accomplished welders can create kilns with separate fireboxes that function like large wood-fired cookstoves. An airtight oven is built above a firebox and the heat converts the wood in the oven (or more accurately, the retort chamber) completely to charcoal. (More information about making the more efficient—and more complex—steel or brick kilns is available through the sources listed in the accompanying sidebar).

Charcoal has recognized medicinal uses. As early as 1550 B.C., Egyptians recorded the curative properties of charcoal. It absorbs poisons (from anti-freeze to drugs) in the stomach. Recent clinical studies indicate that it can also absorb snake venom as well as reduce the activity levels of some viruses and bacteria in the digestive tract.

In using charcoal to absorb poisons, researchers suggest the ingestion of five to 10 times as much charcoal as the toxin in the stomach. More is better, so taking about a quarter pound of charcoal is recommended. The charcoal is finely powdered (to increase the surface area), by crushing with a tool similar to a rolling pin, and then administered as soon as

Access To Information

MOST large libraries have books on charcoal making (look under "wood distillation," "charcoal," or "naval stores"). They are generally out of print. Here are five representative books:

1. *Wood Distillation* by L.F. Hawley, published in 1923 by the Chemical Catalog Company.
2. *The Utilization of Wood Waste by Distillation* by Walter B. Harper published by the Journal of Commerce Company in 1907.
3. *The Portable Charcoal Kiln* by Henry H. Tyron, published in 1933 by the Cornwall Press.
4. *How to Run Your Car on Coal or Charcoal*, by Jerome Ames, published in 1974 by Jerome Ames, Detroit, Michigan.
5. *Activated Charcoal, Antidotal and Other Medicinal Uses* by David O. Cooney, published in 1980 by Marcel Dekker, Inc.

Volunteers in Technical Assistance (VITA) publishes *Making Charcoal—The Retort Method* and other booklets on related topics. They can be contacted at VITA Publication Services, 80 S. Early St., Alexandria, VA 22304; (703) 276-1800. VITA also sponsors an inquiry service. For a copying and mailing fee, they will answer your questions about charcoal. Contact Brig Mathur, Director of Information Services, at the above.

Mark Solomon at Dragon Fire Charcoal/Idaho Forge, 1020 S. Main, Moscow, ID 83843; (208) 882-6549, sells steel charcoal kilns and plans for their construction. He'll send a free brochure for a SASE.



Here a modified drum kiln is prepared for making charcoal.

possible after the poison intake. Mix the powder with water to form a rough slurry and sweeten as needed with sugar, jams, honey or chocolate.

It may be that some day, a charcoal-and-chocolate shake—made from your own natural charcoal—will save your life.

●

Mini-Off-Roader:

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A spunky little machine . . .

Staff Evaluation



THE Suzuki Samurai four-wheel-drive vehicle appears to be Suzuki of America Automotive Corporation's answer to the Jeep Wrangler.

The Samurai retails for several thousand dollars less than the Wrangler. You can get one for about \$7,000 before extras, tax and license, as opposed to about \$12,000 for a Wrangler.

The 1987 Samurais are not much different from the 1986 models, one of which the staff of *American Survival Guide* had the opportunity to road test.

The Samurai has a 1.3-liter, four-cylinder inline, four-stroke cycle, water-cooled overhead cam engine with two-barrel downdraft carburetor. Total weight of the Samurai is just under 3,000 pounds. Top speed is 80.8 miles per hour. EPA mileage estimate is 29 miles per gallon highway and 27 city. Fuel tank capacity is 10.6 U.S. gallons. Buyers can get their Samurais with either convertible or hard



tops. The transmission is five-speed manual.

Still a relative newcomer to the U.S. 4x4

scene, earlier versions of the Samurai have been sold in more than 100 other countries

(Continued on page 72)



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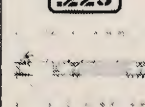
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